

Tapassu and Bhallika of Orissa, Their Historicity and Nativity

(Fresh Evidence from Recent Archaeological Explorations and Excavations)

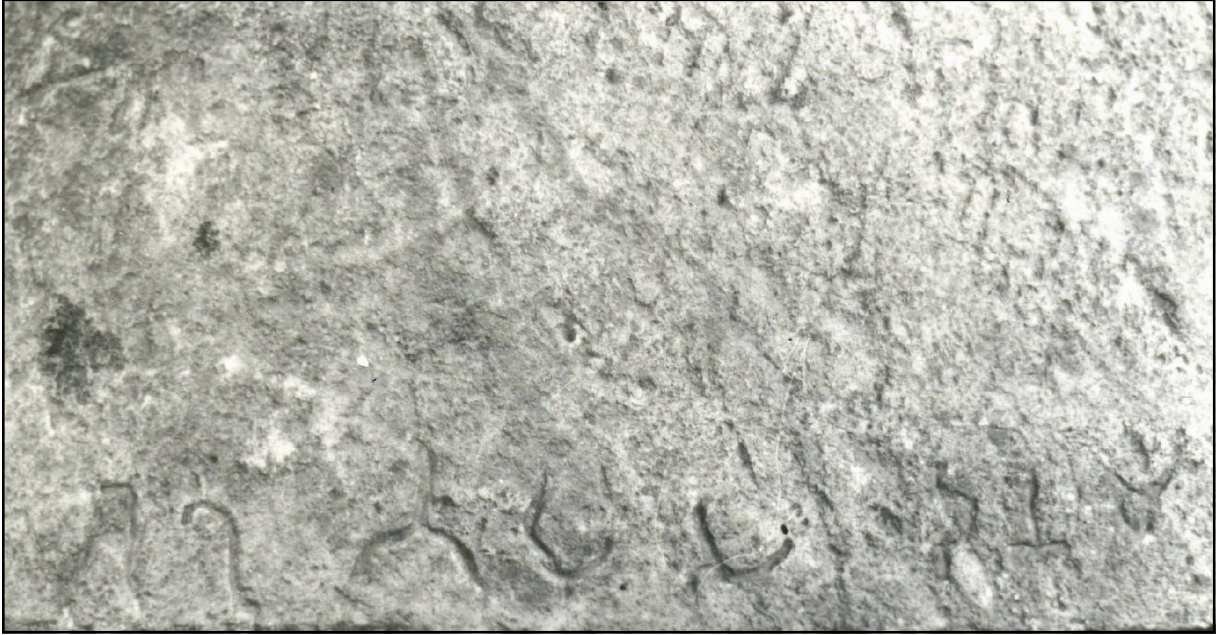
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Inscription - Kesa Thupa

The historicity and nativity of Tapassu and Bhallika, the two merchant brothers of Utkala who became the first disciples of Lord Buddha are shrouded in mystery. Utkal was a very ancient country. In Buddhist literature it is described as 'Ukkala' or 'Okkala'. In the Brahminical literature we find copious depiction of Utkala to have been located in the southern region of extended Vindyan range along with Mekalas, Kalingas, Andhras and

others. Most of the scholars are of the opinion that Utkala of the epic and Puranas is the same as 'Ukkala' or 'Okkala' of the Pali literature. According to Majjhima Nikaya, Vassa and Bhanna are the two tribes of Ukkala who professed a type of religion called Ahetuvada, Akiriyavada and Natthikavada. These two tribes later on are known to have embraced Buddhism preached by Lord Buddha. Tapassu and Bhallika



Inscriptioin - Bhekku Tapussa Danam

(variedly described as Tapussa and Bhalluka or Bhalliya) are ascribed to Vassa and Bhanna tribes of ancient Utkala. The two merchant brothers became so widely popular in Buddhist world that they were represented in various garbs in various countries. The Burmese legends speak Tapassu (Tapoosa) & Bhallika (Palekat) as the residents of the city of Okkalaba in the Irrawaddy valley. According to Dr. N. K. Sahoo Okkalaba is nothing but a variant form of the country of Utkala, mistaken as a city. The Lalitavistara mentions the city (Adhistana) called Utkala in Uttarapatha. The Chinese pilgrim Hiuen Tsang who visited India in 1st half of 7th century A.D. has spoken about two places as belonging to Tapassu and Bhallika in Balkh regions. But as per the older Pali accounts found in the Vinaya texts, the Nikayas and the Jatakas, the two merchant brothers are represented as hailing from the country i.e. Janapada of Ukkala which should be identified with Utkala i.e. modern Orissa in the Southeast

of India. Under this historical backdrop, we have to identify the original home land of Tapassu and Bhallika basing on the fresh archaeological evidence.

Now, the Department of Culture, Govt. of Orissa is making extensive archaeological exploration and excavations in various parts of the state to gather scientific source material to strengthen the historicity and nativity of the two famous merchant brothers of world eminence.

Literary Record:

According to early Vinaya texts and the Anguttara Nikaya "two merchants named Trapusa (Pali Tapassu or Tapussa) and Bhallika (Pali Bhalliya) approached the Buddha eight weeks after his enlightenment and offered rice cakes and honey". As per the belief, present-day Buddhist community, residing in the Athagarh-Baramba region of Cuttack district and Kantilo-Padmavati-Banki opine that the merchants offered



Inscription - Bhallika Lena

the Lord 'Arisa Pitha' (rice cake mixed with ghee and molasses) in a bowl provided by the four guardians of the directions (Lokapalas). After offering these gifts, Tapassu and Bhallika became the first lay disciples (Upasaakas) and received relics of Buddha's hair (eight handful strings of hair) and nails which the Tathagata offered them to enshrine in stupas in their home country. The merchant brothers carried home the divine relics to their native city Asitanjana where they deposited it in a magnificent Chaitya, erected for the purpose. According to the commentary of the Theragatha these two merchants also subsequently visited the Buddha at Rajagriha and by that time Tapassu was renamed as Sotapanna and Devachikaupasaka and his name has been incorporated in the list of eminent upasakas of Lord Buddha. On the other hand Bhallika joined the Sangha and became an arhat. The Pujavaliya

text of Ceylon delineates that Tapassu and Bhallika after their conversion visited the east coast of Sri Lanka where they erected a Chaitya to commemorate their visit. The site where the merchant brothers reached in Ceylon might be identified with Manthai harbour city with which the ancient Oriya people had tremendous maritime contact. The archaeological material of Radhanagara has a striking similarity with the material found at Manthai harbour in Sri Lanka i.e. Fine Grey Ware and Black Slipped Ware, Knobbed Bowls, or Begging Bowls etc. Radhanagar (spelt as Rajnagar in 1929 Toposheet) is situated in Jajpur district of Central Orissa.

The Recent Explorations and Excavations:

Several Buddhist remains within a particular geographical limit with Radhanagar Fort as the

epi center have been found at places like Kayama, Deuli, Tarapur, Vajragiri, Langudi, Kantigadia, Neulpur, Panturi, Bandaeswar etc. These sites are covered under limited excavation to trace here cultural sequence. Even in the trial and experimental explorations, inscriptions mentioning the names of Tapassu and Bhallika at Tarapur and Deuli have been located. The inscriptions have been deciphered by J. Jayprakash, Epigraphist, Archaeological Survey of India. The survey also resulted in the discovery of at least 10 massive stupas, 40 rock-cut caves and several hundreds of votive stupas, images/sculptures of Buddhist pantheon, belonging to all the three schools i.e. Hinayana (Lower Vehicle), Mahayana (Greater Vehicle) and Vajrayana (Tantric or magical form of Buddhism). Explorations at and around Langudi hill yielded spectacular discoveries like the ancient Buddhist monastery of Puspagiri Vihara, an Ashokan stupa, two rare statues of Emperor Ashoka, 54 rock cut votive stupas, five rock-cut dhayani Buddhas and their counterparts. The remains of two monasteries as also a golden glazed Northern Black Polished Ware sherd, the pottery associated with the Mauryan noble class/royal people is striking. The excavation at Langudi hill, with the discovery of Ashokan stupa and Puspagiri Vihara, has substantiated the statement of the Chinese pilgrim Hiuen Tsang (629-645 A.D.) that "Ashoka constructed ten stupas (Pali Tope) in Wu-Tu (Odra) country where Buddha had preached". The stupa at Langudi hill may be the one among the ten stupas said to have been constructed by Ashoka. The epigraphical and archaeological remains of this tract of 10 km radius speaks of the evolution of Buddhism from 6th century B.C. to 10th century A.D. in this part.

The Landscape:

The sites mentioned above are located in a very densely populated areas of Dharmasala Tehsil. The Fort of Radhanagar is situated in the midst of several small hillocks containing spectacular Buddhist remnants belonging all the three sects, Hinayana, Mahayana and Vajrayana. All the hillocks are a part of the Asia hill range and drained by the river Brahmani and its tributary Kelua. The Buddhist sites located on the hillocks are also supported by water bodies of the rivers as well as channels dug-out for obvious reasons. Eventually, they also served as protective water bodies. The region is also one of the most fertile tracts of the Mahanadi-Brahmani delta and characterized by a high dependency on agriculture. The precipitation of the area is also well-balanced but sometimes affected by flood situation. The lithostratigraphic unit of the area is marked by the presence of granite and granite gneiss, charnokites and quartz, chert and chalcedony as main intrusive veins. The landscape provides an ideal location for human habitation being protected by chains of hills and water bodies. The people are smart agriculturalists and bear a Central Indian affiliation, especially the traditional navigators and fishermen of the region. The geographical feature of the region is intersected by rivers like Brahmani and Kelua and by numerous water bodies, small and big laterite hillocks with khondalite, charnokite and sandstone outcrops, plain valleys with black and alluvial soil, it convenient for settlements.

The Culture Complex of Radhanagar:

Radhanagar (200 411 N and 860 111 E)

Radhanagar is located in the midst of a cluster of hillocks, on the right bank of river Kelua,

a tributary of the Brahmani river (about 85 kms from Bhubaneswar) in the district of Jajpur. It is a fortified settlement, honeycomb in shape, measuring 1200 m on each of the sides. Recently, a small-scale excavation has resulted in the finding of a number of important archaeological materials.

At present the fort is partially preserved. Earth, brick and laterite blocks are traced in the construction of the rampart. Fortification of each side consists of three projections, two in the corners and one in the centre. The average height of the fortification is between 4 and 5 m (at projections). There are two gateways (20m wide each) one in the northern side and the other one in the east of the central projection. The space covering an area of 500 sq. m. on the western horizon in the inner fortification, in an irregular orientation, marks the citadel or the nucleus area of the city. The citadel is associated with a large variety of pottery with considerable types and forms, terracotta ring-wells, ritual tanks, brick structures and a wide range of antiquities. The average brick size is 46 X 30.5 X 9 cm³. About 7 to 8 m habitational deposit can be noticed at the citadel area over the water logging surface. The locality of the extreme south within the fortification has preserved a few isolated mounds with an assemblage of potsherds and other habitational debris. The community of low social ranking probably inhabited this locality. Besides, habitational mounds are also noticed outside the fortification, indicating that a considerable part of urban population of Radhanagar lived outside the fortification walls.

Quite close to the fort is located a hillock, Kayama, where a monolithic elephant is located (only one in the entire sub-continent), the second

being at Jaugada (at a place called Gudiali, in between Kavisuryanagar and Purushottampur in Ganjam district) in a somewhat kneeling posture, locally known as 'Hati Pathara'. The third elephant is located at Dhauli (half hewn). The fourth evidence of an elephant (Ashokan) comes from Kalsi, near Deheradun in Uttarakhand, in the form of a graffito. Keeping in view the depiction of the elephant, the one located at Kayama may be considered as the earliest depiction of Lord Buddha in anthropomorphic form which symbolizes birth of Lord Buddha.

Ceramic Assemblage:

The pottery varieties of the site of Radhanagar include a wide array of ceramic products. They include Fine Red Ware (decorated with fingertip decoration), Black and Red Ware, Northern Black Polished Ware, Black Slipped Ware, Knobbed Ware, Roman as well as indigenous Rouletted Ware, Fine Grey Ware, Red Polished Ware, Coarse Red Ware, etc. which speak about the wide contact of the settlement with far off places and civilizations. Besides, a number of antiquities like terracotta beads, earrings, gamesman, horse figurine, bangles of terracotta and glass have also been unearthed within one metre of excavation. Further excavations will may yield more habitational deposit.

Tarapur Hill (200 441 N & 860 101 E)

Tarapur (Plate 3) is a small isolated hillock of khondolite, granite, sandstone with laterite capping situated near National Highway No. 5 at Fatehpur in Jajpur district (at a distance of 65 kms from Bhubaneswar in north-west direction). The site is approachable through a morum road

from the Highway. Most probably, the name Tarapur has been derived from goddess Tara of Buddhist pantheon. But surprisingly, no remains belonging to the Mahayana and Vajrayana cults are noticed.

On the top of the hillock the remains of a stupa is noticed which has been partially disturbed due to natural and manmade factors. The excavation has revealed a square-sized stupa made of burnt bricks whose sides are covered with laterite pillars, most likely to strengthen the corners and edges of the stupa. The shape and construction pattern of the stupa is in a very crude form speaks of its antiquity. Scientific dating (Thermoluminescence method) of some of brick specimen from the core area of the stupa may indicate the exact date.

It can be stated concluded that the stupa at Tarapur flourished as an important centre of Buddhism during the early phase of Buddhism and the date of the site may go back to the early part of 6th century B.C.

Besides the stupa, a double-storied rock-cut cave is also noticed in the debris. From the cave, as also from the nearby areas, a number of used earthen lamps with carbonized impression have been found.

The exploration and excavation at this site have revealed a wide range of material culture such as pottery datable to the pre-Ashokan era. Mention may be made of bowls with circular bases made of well-levigated clay and of fine fabric. The bowls have been found in two wares, namely Red Ware with a very fine core and Fine Grey Ware. The pottery is basically religious and ritualistic in nature and comprised of bowls in profusion and channel spouted basins while shapes of utilitarian nature for household are scant.

At least five inscriptions, two in early Brahmi characters and the rest three in proto-Oriya have been found. The two early Brahmi inscriptions, as deciphered by J. Jayprakash, Senior Epigraphist, Archaeological Survey of India read as 'Bhekku Tapussa danam' and 'Kaligaraja' which associates Tapussa with the site and could be identified with the 'Kesa Stupa' as referred in Anguttara Nikaya, the famous Buddhist text. The casket might have survived in the debris containing the Kesa or hair relic of Lord Buddha. The remaining three inscriptions are datable to later period and read as "Kalinga Gada-Nayakasa", "Kalinga-desa-Gadha-Nayakasa", and "Gupata Khandagiri".

Deuli-Deulipal Hills (200 461 N & 860 081E)

These twin hills of Deuli and Deulipal are situated in the right bank of the river Brahmani near the Gokarnika Tirtha at Jaraka on the National Highway No. 5. The Brahmani meanders at this point making the area protected and suitable for navigation. A large number of rock-cut caves (some are double-storied) are located on these hills, suggesting the Buddhist association of the site. On the top of Deuli hill is found the remains of a large stupa, measuring 75 x 602 ft along with large numbers of laterite blocks, architectural members of the stupa, brick and brickbats and ancient potteries. Besides, the site of Deuli located at a close proximity to the site of Radhanagar on the source of river Kelua has yielded a symbol resembling a cowrie or grain. The symbols are depicted on the exterior surface of the pots. Similar symbol also occurs on seals and other antiquities. Hence, the symbol might have been used as an 'insignia' of Buddhist religion.

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Dated the 27th June, 2005

To
Dr. D. R. Pradhan
Secretary, Orissan Institute of
Maritime & South East Asian Studies
Bhubaneswar.

Sir,

My tentative readings are as follows.

Tarāpura: Buddhist-site
material: Stone

- ① Bhēkhu Tapusa dānama c. 2nd c. B.C.
- ② Kesathupa so.
- ③ Kaligarāja so.
- ④ Kaligagadhānāyakasa c. 13-14th c. A.D.
- ⑤ Kaligadēsagadhānakasa c. 14-15th c. A.D.
- ⑥ Guptākhaṇḍagiri parikshā c. 17th-18th c. A.D.
material: terracotta

- ⑦ Budha c. 2nd c. B.C.
- ⑧ [Kē^{*}]sathupa so.

material: Stone Kayamā: Buddhist site

- ① Gajara [ja^{*}]
- ② Tisa so.

P.T.O.

Radhanagara: Jolt

Material: Terracotta

- | | | |
|---|-------------------|----------------|
| ① | Tosāli na [gara*] | C. 3rd C. B.C. |
| ② | Tasāla nagara | C. 2nd C. B.C. |
| ③ | Tosāli | do. |
| ④ | Kaliga rāṅga ga | do. |
| ⑤ | Kanakamuni | do. |
| ⑥ | Rajapāsāda | do. |
| ⑦ | Nagarō | do. |

Yours sincerely
Prakash

(JAI PRAKASH)

Dy. Suptg. Epigraphist, A.S.I.

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Another discovery of an inscription in early Brahmi characters comes from a rock-cut cave in Deulipal hills, adjacent to the Deuli hill where a gigantic square-shaped stupa has been partially unearthed. The inscription reads as 'Bhallika Lena' and is significant in terms of the identification of the homeland of Bhallika in Orissa. The rock-cut cave is facing to the Deuli hill stupa and might have been used by Bhallika after he became an Upasaka or Arahat.

The inscriptional evidence at Tarapur and Deuli strengthen the connection of Tapassu and Bhallika with Utkala. As evident from the Buddhist literary sources Tapussa and Bhallika were contemporary of Lord Buddha and as such cultural sequence of the site can be traced back to 6th century B.C.

The explorations and excavations conducted at Radhanagara have yielded antiquities like pottery and metal objects, figurines

etc. datable to the pre-Mauryan period. No other archaeological site in Orissa provide so much material of the pre-Christian era. The excavations at Radhanagar yielded a type of pottery known as Knobbed Ware in profusion amount which are deeply associated with early Buddhism in a symbolic perspective. Such wares are located in settlements like Sisupalgarh, Jaugada, Marjakud, Manamunda-Asuragada, Narla-Asurgarh, Budhigarh and Kharligarh and Nehena. They carry trade network of the Sresthis (Buddhist trading community) and are found along the trade route. The site has also yielded a wide variety of antiquities like Northern Black Polished Ware, Fine Grey Ware, Red Polished Ware, Black and Red Ware some of which are even datable to the pre-Mauryan period.

The Route/Trail of Tapassu and Bhallika:

It is known from the archaeological, literary and numismatic sources that ancient Orissa was well-connected with north and south India through trade routes and with South and South-East Asia through the sea. Two royal routes or Highways existed in ancient Orissa, joining Toshali-Ujjain-Pataliputra and Toshali-Chandraketugarh-Pataliputra. The route of Toshali-Ujjain-Pataliputra has been extensively surveyed and established as per archaeological, scientific (several pottery types were subjected for X-Ray, Diffraction Analysis and Thin Section Analysis to understand the trading pattern and the route), ethnohistoric and literary data. It has been confirmed that the route was in use since the 6th-5th centuries B.C. as per the analysis of the archaeological material found from more than 45 Early Historic settlements. Most probably there also existed an important route in between the

Mahanadi and Brahmani to reach Madhyadesa or Central India as has been mentioned vividly in early Buddhist and Hindu literature. There are thousands of Buddhist remnants on the left bank of the Mahanadi as also on the right bank of the Brahmani. A thorough analysis of the archaeological material such as pottery and other antiquities have revealed the existence of a direct route from Toshali to Pataliputra in between the rivers Mahanadi and Brahmani. Tapassu and Bhallika might have followed the route of Toshali-Vidisha-Ujjain-Pataliputra or the unexplored route of Toshali-Pataliputra located most probably in between the two major rivers, Mahanadi and Brahmani which has connected Radhanagar as well.

Discussion:

Ukkala or Utkala mentioned in the Anguttara Nikaya is most likely a variant form of Utkala (Orissa). Later texts and traditions vary as to its location. Burmese legends, for example, identify Ukkala as a city in the delta of the Irrawady river, while traditions of the Mahasanghika schools as recorded in the Lalitavistara and the Mahavastu, place Ukkala in north-west India. From archaeological and epigraphical evidence Utkala is known to have been situated in the north of river Mahanadi in Orissa. This is supported by puranic texts as well. Orissa was known as Ukkala or Utkala, being named after a tribe called Utkalas. In this context, Radhanagar or Rajnagar fort in the Dharmasala tehsil of Jajpur district may be identified with the ancient city of Asitanjana. Radhanagar is the most ancient Early Historic fort in Orissa dating back to the pre-Mauryan era which is also well connected with Tapassu and Bhallika as discussed in this paper.

In the 7th century A.D. the Chinese Pilgrim, Hiuen Tsang (Yuan Chwang) places their homeland in the northwest, identifying two cities north and west of Balkh. It is important to note that Hiuen Tsang spent most of his times in eastern, central and northern part of India up to Allahabad or Prayag where the traveler attended a Buddhist Assembly, organized by Harshavardhana (606-646 A.D.). He was not known to have visited 'Peshawar' or Balkh region in modern Pakistan and Afganistan. Hence his identification of Utkala in northwest India does not seem to be probable.

The site of Radhanagar has not yet been fully excavated horizontally and hence the detailed cultural sequence of the site is yet to be ascertained. However the startling results of the preliminary explorations and excavations in and around Asia hill range of which Radhanagar is the epicenter may be identified with the ancient city of Asitanjana to which Tapassu and Bhallika belonged. It is hoped that the ongoing endeavour of Culture Department may yield many more new avenues to strengthen the historicity and nativity of Tapassu and Bhallika.

Inscription - Kesa Thupa

Inscription - Bhekku Tapussa Danam

Inscription - Bhallika Lena

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Orissan Handicrafts in the Age of Globalisation : Challenges and Opportunities

Pradeep Kumar Jena

Folk arts and crafts are the integral parts of life in Orissa. Famous for the beauty and craftsmanship of Konark, Jagannath and Lingaraj and incalculable other temples, Orissa offers a prominent collection of arts and crafts both decorative and utilitarian. Be it the brilliant appliqué works of Pipili, sparkling Patta Chitra of Puri, Silver Filigree jewellery and golden grass mats of Cuttack or dazzling Horn work of Parlakhemundi and Clay Toys of Mayurbhanj, each handicrafts emanate a charm and originality of its own. In the days of Mc Donalds, Pepsi Cola and Levi's jeans, where free flow of goods and services and also of people and culture have been rampant, the volatility of the choice of the variety-seeking consumers, the king in the age of globalization not only always demands the new and modern but also sometimes revamps the old and the traditional. It is here the case for traditional arts and crafts comes to the fore. Quite surprisingly many foreign fashion shows are run these days with Hollywood models wearing the applied motifs sarees designed by Indian fashion designers. This instance adds to growing demand for Indian folk creations like, applique umbrellas in western sea beaches. This



shows how tradition meets with modernity these days. Globalization has put both east and west into one compartment and makes a single village-a global village. In the age of jet travel and mobile communication, boundaries between cultures are liable to erode and deterritorialised.

Globalization and Indian Crafts Industry :

India opened up its economy and adapted to globalisation in the early nineties. Major changes initiated as a part of the liberalisation and globalisation strategy included scrapping of the industrial licensing regime, reduction in the number of areas reserved for the public sector, amendment of the monopolies and the restrictive trade practices act, start of the privatisation programme, reduction in tariff rates etc. Since the advent of globalization in 1991, India has experienced a lot and accordingly the society has undergone many changes in different spheres. Though the forces of globalization have ample positive effects in the long-run in many sectors of our economy and society, some of its repulsive implications against the poor in many cases have worried our development strategists. If we suspend the later for a moment, one of the growing sector benefited

out of it, is the Handicraft industry with 'Indian handicrafts export crossing Rs.1,220/- crores in 1990-91 from merely 10 crores in the mid fifties.' Again the Ministry of Textiles data show, it increased to Rs. 4517.52 crores in 1994-95 and Rs. 7206.79 crores in 2000-01. It had reached at the peak Rs. 8059.63 Crores in 1999-2000. (www.texmin.nic.in). Indian handicrafts are now available in global markets, so also foreign crafts in our shops. Handicrafts constitute a significant segment of the decentralized sector of our economy and its importance is being felt when it is assessed that it provides employment to lakhs of artisans scattered especially in the weaker sections of our society such as SCs, STs and the women, producing goods worth thousands of Crores of Rupees per year.

The skilled hand of the Indian craftsmen is our most important and yet most invisible resource. It is to be perceived with concern and with a precise understanding of its value. Because once lost nothing can replace it. India has been the exporter of crafts for ages. The workmanship of the Indian craftsmen is so exquisite that throughout the 18th and 19th centuries India was known to other countries on the trade route more by her crafts than by her art, religion and philosophy.

As the data shown above clarifies, remarkable progress has been made in exports of handicrafts since India's Independence. The Handicrafts and Handlooms Exports corporations of India ltd (HHEC) a govt. of India undertaking established in 1962 has been instrumental in promoting Indian handloom fabrics in the west. There is a vast scope for the Indian's handicrafts exports to grow further. In the age of globalization, where efficiency meets success, Indian handicraft's further prospects lies in diversification of products and markets. We have to be ahead of our competitors in keeping ourselves informed of market trend and changes in fashion and design.



Orissan Crafts and Crafts Persons :

Orissa, one of the backward state in the Indian union has also taken the advantages of new opportunities of globalization and designed policies in such a way to attract foreign investment and forge ahead with its policy of economic reforms. Now it has attracted FDI flows in different sectors of its economy. Globalisation has many impacts on its handicrafts sector. Orissa, which has distinguished crafts heritage, 'there are 69,395 handicraft artisans, which includes- 41,612 males and 27,744 females. Many of its crafts have long historical past and have been produced since antiquity. For instance the Applique crafts of Pipili in Puri district which is now an internationally well known craft, is thought to have been used to decorate the temples since 1054 A.D. Sources say, in ancient Orissa several crafts and industries also developed during the Nanda and Maurya rule as has been found from the excavated sites at Sisupalgarh (near Bhubaneswar), Jaugarh (in Ganjam) and Asurgarh.

During present times, according to available statistics, in Orissa during 1998-99, the total

procurement and sale of handicrafts and art-textile products through government sources was to the tune of Rs.289.05 and Rs.526.97 lakh respectively. During 1998-99, handicrafts and art-textile goods worth Rs.28.76 lakh were exported to countries like Germany, Australia and France. However the total export of Orissan handicrafts during the year 1998-99 was only Rs.63.60 lakh. This is at a time when the all India export figures of handicrafts were worth Rs.58.40 Crore. Interestingly, according to latest data, the number of Crafts persons engaged only in Applique sector in Orissa stands at 6,444 and the annual production in this sector stands at approximately Rs. 280 lakh. In the production of Silver filigree nearly 6800 artisans are engaged which has an annual production of nearly Rs.900 Lakh. Now many of the handicrafts have become fashionable elements in almost everybody's house and of course with the business going beyond borders, the crafts have attracted foreign tourists and foreign markets (thereby increasing the demand), thanks to the growing intensity of the forces of globalization.

Despite its huge deposits of mineral resources, Orissa continues to remain as one of the most backward states of the Indian Union. Also the low level of educational attainment of its manpower in general and the absence of skilled labour force along with a promising entrepreneurial class in particular throttle industrialization of the state economy. Again the agricultural sector has limited openings to absorb its growing workforce. Hence the issue of promotion and revival of traditional village and cottage industries in a more extensive way come to the fore.

In the era of globalization and changing the taste and fashion, different crafts products have been undergoing change and adopted innovation. For instance, the applique works of Pipili have been reoriented to make applique umbrellas with

metal fabrications, which are used in sea beaches and gardens, while sarees, chholies etc with applied folk motifs are becoming popular among people.

Problems Facing the Crafts and Crafts Persons :

In the present globalized and financial liberalized market, owing to the popularization of machine based low cost and superior quality consumer goods, the Indian handicraft industry in general and Orissan craft industry in particular is facing enormous problems. As there has been the evolution of the modern market system economy, the artisans have lost their holds over the old patron-client market network and jajmani relationship. In the globalization times, though with their products going global and increasing demand for it, there is a rise in the handicraft sector economy, still 'the artisans have become increasingly dependent on middle men like petty merchant capitalists who pay the artisans in wage on piece rate bases.' The government's initiative to create cooperatives has not become much successful. A report says there are over 25lakh crafts persons in India, based mostly in the villages who are not used to interaction with buyers and don't have the necessary skills to safeguard their own interests. Illiteracy often makes them more vulnerable.

Another problem is that the village craftsmen in our society remain concerned that with free trade, mass production, embroidery from other parts of the world will out price the products of their hard labour. Although globalization has so far served the handicrafts sector well, there is no denial that some of these products will come under attack and India will not be able to word that off. In Orissa various small scale industries have been facing enormous problems and have failed to compete with the Chinese companies who have intruded into the Orissan market with

their low cost products. So there is an urgent need for the Orissa government to invest more in this sector. Since handicrafts come in the state list, it becomes a major responsibility of the state govt. to ensure maximum development in this sector.

Another problem is in Orissa, it is observed that the production matrix of the handicrafts is structured in such a manner that the craftspersons notwithstanding their superb skill and artisanship always remain at the receiving end. In contrast the trader entrepreneurs or merchant capitalists and the middle men by virtue of their control over the marketing of the craft-goods occupy the top position of the production ladder. The illiterate artists failing to deal with the modern market system take the help of these middle men who pocket the actual surplus. As a result the artisans gradually become poorer though their products become highly demanding in both home and international markets. It has compelled the poor artists of the state who constitute the third largest in the country to shift to and adopt a more viable occupation. A report of the United Nations suggests that in India, over the past 30 years the number of artisans have declined by at least 30 per cent and many of these artisans are joining the ranks of casual wage labourers and the informal economy. As we see in Orissa also there is a gradual decrease in the number of Darjis engaged in applique works who are choosing to shift to other professions.

Another potential threat to the handicrafts is related to its innovations. In market economy, emphasis is given to the consumption pattern of the people. If the customer wants a product, it must be available, even if the social costs are high. So the artists are bringing in changes in different craft products to meet the demands of the people. In many respects the contemporary artisans retain traditionalism in their craft while simultaneously

producing for a global consumer or local tourist market. But the problem arises when originality is lost in the process of innovation. In Orissa, in the appliqué sector, it has been seen that competition amongst the artisans, use of low quality inputs and use of readymade and machine made items have often brought down the standard of the work. Something exceptional in the market that may be liked by the tourists initiated change in the appliqué works. According to Sheikh Aasique of Nilam Appliques (name of the shop) in Pipili town, 'we have to bring changes since the consumers want variety.' Such increased diversity in the number of items produced has not only seen in appliqué works of Pipili but also witnessed in patta-paintings, tassar-painting, silver filigree, brass work and stone carving.

INTERVENING MEASURES: Now it is very clear that in the age of globalization the local handicrafts products of our country have enough opportunities in the home and global markets. However the precarious conditions of the artists needs careful interventions. In this context, it can be said that the government have been taking different measures to make the handicraft products globally competitive and the condition of the artisans better. The Development Commissioner, Handicrafts has taken various safety measures for the welfare of the artisans like giving training to the artists, introducing new techniques and designs to meet the demands of the variety-seeking consumers. Besides, organizing exhibition-cum-sale of crafts products, opening up of sales emporium for the handicrafts goods and providing insurances to the poor craftspersons are also taken up. To deal with the handicrafts related issues, the All India Handicrafts Board was established in 1952 to study the problems confronting the handicrafts, to improve and develop the production techniques and new designs to suit the changing tastes and to promote marketing in India and abroad. However all of

these have to be implemented wholeheartedly by the government agencies. Add to it, various co-operatives, voluntary associations also need to put sincere effort for the better working condition of the artists.

The production base is much unorganized in Indian handicrafts sector. The craftsmen use traditional tools and techniques for which the production base is very weak. So for improvement in the quality of production, it is necessary to upgrade the skill of the artists who should be supplied with quality raw material and adequate financial assistance. Government should take ample measures to provide with loans and giving training to the artists. At the same time care should be taken to ensure that with innovation originality of the crafts is truly maintained.

To make the craft products internationally well known and commercially viable, steps should be taken together by the ministry of Information, Commerce and Tourism. Besides the Indian government could make different Memoranda of Understanding (MoU) for export of crafts goods to foreign countries while dealing with trade related agreements. In addition, the craftsmen should also be properly exposed to the market, leaving a little room for the intrusion of the exploitative middlemen. Since antiquity, Orissa is well-known throughout the world for its celebrated handicraft products and illustrious expertise of its artists. Let us work together to continue with that tradition.

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Nature Queen Chilika and Eco-Tourism

Dr. Janmejy Choudhury

Tourism is one of the major sources of income of country. The word tour is derived from the Latin word 'Torous', meaning a tool for describing a circle on turner's wheel. Though the word dates back to the 13th century, tourism became popular only in 1800 as people began to travel from one place to another for recreation and sightseeing. The prime motive of tourism is pleasure and leisure, however, there can be other social motives also. Travel and tourism has been an important social activity of human beings from time immemorial. Tourism is a tool to create employment for both the skilled and un- skilled people. Different government and non-government organizations need to be involved in the process of developing sustainable tourism. Today, tourism is the world's largest industry. Sustainable tourism is synonym to that of ecotourism. Eco-tourism means management of tourism and conservation of nature in a way so as to maintain the fine balance between the requirements of tourism and ecology on one hand and the needs of the local communities for jobs, new skills, income-generating employment and a better status for women on the other hand.

The term "ecotourism" was originally defined as "traveling to relatively undisturbed of uncontaminated areas with the specific objective of studying, admiring and enjoying the scenery, its wild plants and animals, as well as any existing cultural manifestations found in these areas." "Ecotourism is responsible travel to natural areas

that conserves the environment and sustains the well being of local people." According to international union for the conservation of nature ecotourism is "environmentally responsible to travels and visitation to relatively undisturbed natural areas in order to enjoy and appreciate nature; that promotes conservation, has now visitor impact; and provides for beneficially active social-economic involvement of local populations. "The ecotourism includes the biosphere reserves, mangroves, coral reefs, deserts, mountains and forests, flora and fauna, seas, lakes, rivers and caves. Orissa has enormous potentiality for growth and development of ecotourism. The Chilika lagoon is not only one of the mega biodiversity of Orissa but also one of the hotspots of India. Orissa forms a part of the global biodiversity hotspot with varieties of flora, fauna, rare and endangered species that provide strong base for promoting ecotourism industry.

Queen of natural beauty, Chilika, the largest brackish water lake in Asia covering an area of over 1100 Sq.K.M. is a great attraction for tourists for fishing, bird watching and boating. In winter Chilika flutters with thousands of indigenous and migratory birds of many varieties from far and near even from the distant Siberia. The fabulous beauty of Chilika which has inspired many poets and philosophers to sing its glory is quite evident in the poems written by Radhanath Roy and Pandit Godavarish Mishra. It was one of the outlets of maritime trade through which the

traders of Orissa used to sail for south-east-Asian countries like Java, Sumatra and Bali. The atmosphere is just serene and undisturbed amidst the blue expanse of the water on one side and an evergreen range of hills on the other. Dotted with a host of islands with romantic names, a cruise in Chilika will be a life-long memory. But now-a-days the lagoon is facing a number of problems sung as salutation, shifting of Chilika Mouth, loss of salinity, extensive weed growth and depletion of fishery resources, increased aquaculture activities, changes in species composition, and many more. There is a tale that is often told to explain the birth of Chilika. The 4th century pirate king Raktabahu was believed to have traveled across the seas in an armada to plunder the rich and holy town of Puri. The citizens of Puri deserted the town in anticipation of the attack. Raktabahu was enraged that the approach had proved futile and therefore directed his fury towards the sea that had betrayed him. The sea parted to let the army march in before the waves turned inn and smothered the entire lot in its tides. The Chilika lagoon is the largest brackish water lagoon in India and is located between the latitudes 19.28' and 19.54'N and longitude 85.51' and 85.38'E. It stretches over Ganjam, Khurda and Puri district. The water-spread area of the lagoon varies between 790 sq.km at its lowest water level and about 1050 sq.km at the highest water level, including 42 sq.km. total area of channels connecting the lagoon with Bay of Bengal.

The major attraction of Chilika lagoon for the tourists is its natural beauty with the pleasure of boating, bird watching and cavorting dolphins while the religious Kalijai and the mouth-watering delicious dishes are incidental attraction. The important tourist spots of the Chilika lagoon are Barkul, Rambha, Satapada, Nalabana, Somolo, honey moon, breakfast and birds islands. Rambha, Barkul and Satapada have been chosen as the tourist site for the study. One of the main attraction of Chilika lagoon is the sighting of the

Irrawaddy dolphin, once abundant but now an endangered species. The lagoon has immense potential for development of ecotourism. It witnesses the largest congregation of aquatic birds, particularly during winter. Flocks of migratory water fowl arrive here from as far as the Caspian Sea, Baikal Lake and remote parts of Russia, Magnolia, Lakah and Himalayas.

Chilika has a lot of potential for the growth and development of tourism in Orissa. Tourist centers such as Konark, Chandravaga, Puri, Brahmagiri and Satapada fall in one line. Chilika- this natural beauty spot can attract a large number of visitors both from outside and inside the country. To some extent Satapada caters to the need of tourists, yet more things are to be accomplished. Environmentally responsible tourism is a new concept of the world over. More stress is being given to make tourism eco-friendly with an orientation in perception and an acceptance of the basic tenets of conservation. Tourism today represents around 6% of the world trade and almost 13% of the total global consumer spending. It is a fast growing sector and is the third largest generator of foreign exchange in India. Chilika provides an excellent opportunity for ecotourism and the participatory eco-tourism can generate adequate alternate employment opportunities for the local community and create desired awareness amongst the stake-holders as well as the visitors for the conservation and wise use of its natural resources. Major concentrations of birds are seen from November to mid-February when large numbers of migratory birds come from far off places of the globe. Nalabana and its neighborhood are the major eye catching bird concentration area harboring lakhs of birds. Chilika Lake is famous for the vast numbers of migratory waterfowl that flock-there every winter, and the lake is reputed to support the largest concentration of migratory waterfowl in India. The migratory birds during winter attract the tourists and "Bird watchers". It is well understood that

the congregation of large numbers of water bird species at Nalabana for feeding, resting and roosting, is due to various reasons such as the abundance of food, accessibility to food resources due to the shallowness and drawdown, availability of exposed mudflats and shorelines for roosting in an area well protected from 9.59 lakh resident and migratory birds visited Chilika lake during 2004-2005. The irrawaddy or snub fin dolphin (Bhuasuni magor) is somewhat elusive species, found in various large rivers, bays and estuaries in south and south-east Asia. These dolphins in Chilika Lake are likely to be affected by the various recent changes in Chilika Lake and their long-term survival appears threatened. Most abundantly, dolphins are spotted along the outer channel up to the Satapada.

Chilika, is the largest brackish water lagoon in the Indian subcontinent, presents unique ecological features, the lagoon embodies marine, brackish, freshwater environments and it is the home of fish, prawn and crab which enrich the fishery resources of the lagoon. Fisheries have been the natural resource of the Chilika lagoon. A total of 225 fish and prawn species have been recorded from Chilika lagoon, of these, 28 species are marine, 38 are freshwater and 159 are brackish water. Fish species that are commonly caught by fisherman in the lagoon comprise mainly 11 groups of fishes which are commercially important and contribute to the quantity of landings. These consists of brackish water prawn, mullets, clupeids, perches, threadfins, catfishes, fishes belonging to beloniformes, sciaenid, cichlids, tricanthus and miscellaneous ones including freshwater fishes, freshwater prawns and brackish water and marine fish species. The commercial fishes of the lagoon contribute to more than 54% of the total annual average landings. All endemic fishes breed in the lagoon during April to September. Mulletts, sea bass, threadfins and pen acid prawns migrate from the lagoon to the sea for breeding and their progeny migrate from sea

to the lagoon, providing a major means of requirement to fishery.

Chilika, A wonder creation of the nature, is a vast and picturesque lagoon in the heart of coastal Orissa. It displays lavish scenic beauty and is famous for which biodiversity including the migratory birds that discover in this unique wetland ecosystem a "Home away from home". The rich biodiversity of the lake and its tourist importance have enabled the state of Orissa to earn a lot of foreign exchange for socio-economic development of the people. Wetlands are among the most productive ecosystems in the world. The functions of wetlands include flood control, aquifer recharge, nutrient absorption, sediment retention and erosion control. Therefore, it is high time to work hand in hand with other stakeholders working in the area for over all conservation of the lagoon.

It is said that any visit to Orissa remains inconclusive without a visit to Chilika Lake. Chilika provides an opportunity to visit nature and natural beauties through its vast coverage of wavy bluish water, vegetation rich small mountains and islands in it and the clean bluish sky with floating clouds hanging over it. Thus, a visitor can visit and enjoy the beauties of three important spheres like, water, land and the skies if he/ she visits Chilika. That is why Chilika has attracted many poets, philosophers, nature lovers and even the general public and tourists from time immemorial. Chilika is such a place that, one can feel nature and natural process in a simple and enjoyable way. Really, what we call mystery of nature, is greatly seen and felt in Chilika. These definitely give a picture of its tourism importance as government of Orissa and government of India have recognized it as a place of importance in eco-tourism.

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Baliyatra : Reminiscence of Orissa's Maritime Glory

Prabhukalyan Mohapatra

Orissa province, known as Kalinga in ancient times, was commanding a very high position in the maritime activities of India in the past. Brave and adventurous Kalinga sailors were making daring voyages to different far-off lands of the world and had maritime contacts with Roman Empire, Africa, Persian coast, Arabian countries in the West and China, Japan, Siam, Champa, Burma, Ceylon etc in the East. Besides, the countries with whom the people of Kalinga maintained enduring commercial and cultural relationship were the islands of Java, Sumatra, Bali and Borneo collectively known as Suvarnadwipa or modern Indonesia. Orissa's glorious maritime past has been proved from the excavated materials like Roman coins, Kushan coins, Chinese ceramic sherds found from different parts of Orissa in the recent past.

Some socio-religious festivals prevalent in coastal Orissa also provide vital information about Kalinga's glorious maritime heritage. Festival of Baliyatra on Kartika Purnima (full-moon day of the month Kartika ie. Oct-Nov) is one of them on which 'Boita Bandana' (ceremonial send off to the merchants sailing in boats) festival is observed throughout Orissa. Even now toy boats lit up with candles are floated ceremonially by the women-folk of Orissa on all available water

courses in the same fashion in which the ladies of yore used to send their men on voyages wishing them well.

Baliyatra literally means a 'Voyage to Bali'. And it also suggests a festival connected with Bali. But people of Orissa, on this auspicious day, become nostalgic about their past associations with Bali and the glorious maritime tradition of trans-oceanic voyages they undertook to South East Asian countries. Large number of men, women and children attired in colourful costumes throng all water bodies carrying tiny boats made up of banana peels or paper or solapitha with lighted lamps inside to launch them on the gentle waves accompanied by blowing of conch, ululations by women and occasional burst of crackers. Oriya women perform the rite of 'Boita Bandana' to evoke the memories of the voyages of adventurous Kalingans of yore and create a truly romantic mood.

Bali of Indonesia and Kalinga (Orissa) of India have influenced each other's culture to a great extent. There are many similarities between the culture and life-style of the people of these two countries. Both Bali and Orissa boast of their culture, tourism, graceful dance forms, art and handicrafts, temples and monuments, distinctive

style of architecture and tie-die technique, elegant textile designs etc.

Baliyatra festival of Orissa has some parallel with 'Masakapan Ke Tukad' festival of Bali where similar floating of toy boats in memory of maritime ancestors is made. Likewise 'LOYKRATHONG or LOY Brah Prahdip' festival of Thailand consisting of ritualistic floating of boats in the month of December has similarity with Orissan custom.

On Baliyatra festival of Kartika Purnima an Oriya lyric is usually recited ie. 'Aa-Ka-Ma-Bai, Pana-Gua- Thoi'. Aa-Ka- Ma-Bai connotes the month of Asadha, Kartika, Margasira and Baisakha of Oriya calendar. While the period from Asadha to Kartika (July - September) was the season of outgoing voyage and Magha to Baisakha was considered to be the season of return voyage.

Apart from other places of Orissa, Baliyatra is celebrated with much pomp and grandeur in the historic city of Cuttack for seven days from Kartika Purnima. Some opine, Oriya Sadhabas (sea traders) were sailing off to Bali on this auspicious day at the end of the turbulent monsoon season for which it is named as such. Others say, Sri Chaitanya, the great Vaishnavite Bengali Saint, first landed in the soil of Cuttack after crossing the sand-bed (Bali) of Mahanadi river on his way to Puri on this auspicious day. Lakhs of people congregate in the famous Baliyatra festival of Cuttack city where

innumerable varieties of goods are bought and sold. People also enjoy boating on the river Mahanadi with friends and relatives in the moonlit night during this festival.

Though the ancient ports in Orissa coast have become inactive due to gradual silting of the river mouths and maritime trade is almost extinct,



yet the racial memory still preserves the past tradition through annual celebration of Baliyatra. This festival is still celebrated throughout Orissa as a commemorative ceremony of the past glory.

Baliyatra festival is also associated with legend 'Taapoi' and rituals like 'Bhalukuni Osha' and 'Bada Osha',

'Akasadipa' festival which speaks volumes of Orissa's glorious maritime heritage. While 'Khudurukuni Osha' is observed on each Sunday of Bhadraba month by un-married girls to worship Goddess Maa Mangala for the safe return journey of the family members from sea, 'Bada Osha' is linked with the boat making tradition of yore.

Similarly, 'Akasadipa' festival is celebrated to remember the artificial light houses along the coast of Orissa, legend 'Taapoi' is deeply associated with Baliyatra festival which preserves in race memories the romantic stories of young maidens waiting for the return of their sailor brothers.

To revive and refresh the memories of Kalinga's maritime glory, a boat expedition was organized on the Kartika Purnima of 1992. History was recreated when seven member crew on board a 13 meter long yatch sailed for Bali from Paradeep port of Orissa retracing the ancient trade route of Kalingans. The flag off ceremony of the expedition was held at Paradeep port on 10th November 1992, the day of Kartika Purnima. 'Boita Bandana' ballet, evocative of ritualistic send off of the merchant ships of the past was performed amidst ululations and blowing of conch shells by women. Thousands of people cheered the sailors of sending out decorated yatch, INS SAMUDRA before dawn which revived the old tradition as a measure of goodwill for the people of Indonesia and to promote tourism. The event, a modest attempt to rediscover the cultural ties between two countries, drew the attention of national and international media to a great extent. The yatch, INS SAMUDRA, covered a distance of 5810 nautical miles over a period of about 17 weeks highlighting

the glorious trans-oceanic voyage of Kalingans. The expedition witnessed a 'grand finale' at Bali of Indonesia where a cultural festival having seminars, exhibition and presentation of Orissan performing arts were held for three days. An attempt was made to recreate the ethos of Orissan culture through presentation of its dominant styles of architecture, handicrafts and folk dances so that Indonesian people could get a glimpse of the art form of this culturally important state of India.

The spirit of enterprise and adventure was remarkable among the people of Orissa in ancient times, who cherished the ambition of founding colonies in distant lands of South East Asia and Ceylon. Kalingan Sadhabas (sea-traders) were a prosperous community having trade and commerce link with many countries of the world. The festivals like Baliyatra, rituals such as 'Khudurukuni Osha', 'Bada Osha' and legend 'Taapoi' reminds us the maritime glory of ancient Orissa. Those glorious days are now gone but the memory is still alive.

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Kalinga's Relation with Indonesia

(Circa, 1st Century B.C. to 7th Century A.D.)

Pareswar Sahoo

In this paper an attempt has been made to highlight the possibility of maritime relations of ancient Kalinga with South - east-Asian countries like Indonesia based on socio-economic and historical perspectives. The other objective of this paper is to make a historiographical study of Orissa's ancient overseas trade in terms of the genesis, evolution and characteristics. Also the cultural and the dominant role played by the navigators and merchants are subjects of great historical interest.

The ancient Kalinga (present Orissa) is identified in the ethnographic map of India's east coast and considered as famous for its rich cultural traits, and ancient maritime trading activities, which progressed even through the medieval period and surfaced in the shape of multifarious overseas activities in the modern period of Indian history.

The traders, navigators and different categories of people from the various parts of the world in ancient times like, the Oriyas, the Portuguese, the Dutch, the Olandaz; the French, the British, used to appeared at different periods of time on the ports located on the east coast of India where they had opened trading centres. The maritime traders resided there during the trading season and returned following the favourable wind. The trading activities led by Kalinga was flourishing in S.E. Asia, now inhabited by the present Asean countries like Indonesia, Philippines, Malayasia and Srilanka, Siam

(Thailand). Besides the traders along also moved the east coast to Singhal, and Lakshadeep, situated on the west coast of India in the Arabian sea. Apart from this ancient Kalinga also developed a brisk overseas trade with Rome and Greece.¹

But from the close of the fifteenth century upto the mid-eighteenth century when the Portuguese and the British arrived in the Indian Ocean, the spread of Christianity and Islam took place due to the trading activities led by the Bengali and Gujarati Muslim merchants. B. Harisson rightly states "Islam was on the move across Asia and Muslim merchants were carrying the faith along with their merchandise whatever they travelled."² This was the peculiarity of trading activities in the Indian Ocean.

Generally researchers in the field of maritime heritage of Orissa have used the Buddhist sources i.e., *Ceylonese Chronicles*,

Dathvamsa, Dipwavamsa, Mahavamsa, Nikayas, Jataka Tales, Brahminical sources viz. Bharatmuni's *Natyasastras*, *Arthasastra* by Kautilya, *Raghuvamsa* and *Kumarsambham* by Kalidas, *Skandapuran*, *Vayu Puran*, *Mahabharata* and *Ramayan* etc.³ The foreign accounts like Ptolemy's *Geography*, Pliny's *Natural History*, *Travel Accounts Si-Yu-ki* of *Hiuen-Tsang* the Chinese Buddhist monk, *Indica* of Meghasthenes and *Ibanbatuta's Accounts* etc.⁴ The work of above mentioned eminent scholars have not been occupied in proper spirit by other scholars as its aim was to glorify the Indian maritime heritage. Hence for the preservation of the importance of Orissan ports vis-a-vis the outside overseas world, more specifically with Ceylone, Maldives, Indonesia and the South East Asia and western world. The primary sources are required such as *manuscripts, Log book of ships, Direction of Sailing, Antiquity maps from marine Archives*, London.⁵ To access the most probable trading activities of Kalinga and its port sites at different periods of the modern and scientific method of coastal geomorphology is highly required. The ports of Dantapura, Kalinganagar, Tosali, Singhpur etc, have been highly emphasized besides Pithunda, Tamralipta, Poloura, Apheterian, Kantakasila, Chelitalo, Chilika, Puri, Konark, Subarnrekha, Narekha, Sarogo, Chhaluya, Baleswara, Loichanpur, Chudaman, the present Chudamani in Baleswar district etc.⁶ referred as the important ports of ancient Kalinga.

Besides Ptolemy's *Geography* in 1st century BC refers how the Sadhaba's were export in making their Arnababota or Boita by implementing the modern scientific techniques. The another source of informations about the maritime activities of Orissa is the then inscriptions. Which provides the knowledge about both the

art of travelling in the sea and the overseas trade and commerce was the curriculum of the education of the Sadhabapuas and the princes.⁷

The sailors from ancient Orissa were abundantly aware of the physical nature of the coastal line, like the flow of wind and oceanic current circulation used to happened advantage of this reserved wind current in winter, since on those days the country sailing boitas used to take advantage of the derection of wind and currents in the sea like the Bay of Bengal, Indian ocean. In the month of November in Orissa coast, average number of cyclones per annum was 0.09 and severe storms 0.0049.⁸ In the second half (mid-Nov.) about almost no storms are experienced in the Orissa coast, (datas are available from the Indian Meteorological Department) when the Kalinga's traders used to set their sails from the Mahanadi mouth. In about a month's time they used to cross Andhra Pradesh Coast and Coromandal Coast to reach Indonesia Coast and its southern most tip by mid - December. During December the Andhra coasts experience on an average per annum 0.019 storms and so severe storms are recorded while the Coromondal coast used to be a little more stormy as the average number of storms experienced is 0.116 and severe storms 0.068. So that the upward journey starts by the Kalingan sailors from Mahanadi mouth by mid-November and reached Bali by mid - January. They traded in S.E. Asian countries for about two months (mid - January to mid - March). Significantly this period is comparatively free from very heavy equatorial showers, which provide an ideal climate for trading in this equatorial region. They started their return journey by mid-March to reach Kalinga coast by mid-May.⁹

The Kalinga seafarers (Sadhabas) used to go to Indonesia particularly Bali in the sea worthy

country by boats tanking the advantage of this retreating monsoon (N.E. Monsoon) from Mahanadi mouth down to the S.W. along the east coast of India right upto Nigappatanam in Pennar delta and Point, Calimere 10°20" N. Latitude further South, just, North of Palk Strait. The Kalingan sailors used to trade all along their S.W. ward voyage along the east coast of India and used to replenish the essential provisions like food and water if required. Besides, Tamralipta (now Tamluk) in the Midnapore district, Balasore, Chandbali, Dhamra, Palur and Gopalpur in the present Orissa coast and Kalingapatnam, Macchilpatanam Bimalipatanam on the present Andhrapradesh coast also died down which had a very flourishing maritime activities during 1st century B.C. 7th century A.D.¹⁰

Ancient Kalinga had prosperous relations with Indonesia not only on the overseas activities but also in a socio-cultural segments. Like the range of pottery with rouletted ware and metal artifacts have been recovered from Buni culture¹¹ on the west coast of northern Indonesia of which the three are very significant. These pottery specimens have been extensively found from the Orissan coast, like Manikapatna and Sisupalgarh which have been dated to the period of 1st century B.C.¹² Besides the representation of crocodile in the sculptures of Orissan temples suggest the relationship with Indonesia which is seen even now there. The typical colloquial languages in our Oriya literature also is highly influenced by the culture of Indonesia due to the trading activities by the *Sadhabapuas*, in ancient time. The term Bou¹³ (Mother) originally originated from Indonesia. Which is extensively used in nook and corner of Orissa. And in Oriya tales the words like Tuantuin¹⁴ also found in Indonesian literature, *Tuan* means old man and *Tuin* means Old women.

Hence it can be presumed that the Oriya traders learnt and brought these terms to their mother country through their close commercial links.

Overseas trade and maritime activities of Kalinga played significant role in the spread of Indian's glorious cultural heritage. Indians more specifically the people of Kalinga established their colonies in South Eastern Asia like Indonesia.

It is said that long before the Pallavas of South India the people of ancient Orissa had laid the foundation of Indian trades in South East Asia. According to Si-Yu-Ki by Hiuen-Tsang and accounts of other historians the people of S.E.A. called as *Kulnun*¹⁵ or king (the people of Kalinga). Besides, the Indian immigrants in the Malaya, and Indonesia Archipelago are still called *Orang Kling* which is perhaps derived from the word Kalinga, the name by which the inhabitants of ancient Orissa were once known. There was also a Hindu Kingdom in Central Indonesia, which the Chinese called *Holina* or Kalinga. On the colonisation of South-East-Asia, M.M. Das points out : The expansion of Kalinga, political and culturally into the lands so mentioned was really a great contribution of that land to the civilization of the East.¹⁶ Even today the pacific islanders take towards the shores of India in memory of a very remote age, when the people from that side went and civilized them. The remains of Hindu and Buddhist monuments in Malayasia and Indonesia still proclaim a cultural conquest of those lands by Kalinga. The names like, *Talaing*, *Telinga*, *Kling*, *Keling* and *Kalinga* are still used by the people of Indonesia and Malayasia. Besides the colonies, Prof. P.R. Rao, of Osmania Univesity, Hyderabad, suggested that, even today a port named Kalinga in Indonesia is existing. Perhaps

Kalidas in his monumental work *Raghuvansam* has described the Sudhabpuas are known as the Lord of the Sea.¹⁷

Thus, in my considered opinion ancient Kaling's relations with Indonesia is not only a cherishable cultural trait but also one of the best achievements in ancient maritime trading activities of the world. Undoubtedly it can be said that the Oriya seafarers (Sadhapuas) played an important role for the spread of their indigenous heritage in S.E. Asia in memory of which even today the Oriyas observe the day of *Kartika Purnima* every year as the day of Boita-bandan and the historic Baliyatra on the bank of the river Mahanadi the auspicious days for launching the sea-voyage of maritime trade activities.

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Maritime Heritage of Orissa

Dr. Balaram Tripathy

Orissa with her kaleidoscopic cultural heritage possesses a long stretch of splendid seacoast comprising of undivided districts of Ganjam, Puri, Cuttack and Balasore. Besides, the lake Chilka also adds more splendour to the rich cache of cultural heritage. Numerous literary records, Puranas, Epics, the Vedas, early secular literature, medieval literature, Colonial and post-Colonial literature speak about the glory of the sea coast as also the marine heritage of ancient Orissa. In epigraphic and palm-leaf records also there is vivid mention of the sea coast and the seafaring activity. These literary records clearly speak about the thriving trade network (both inland and overseas) of the coast with Southeast Asia, China and the Roman World. But on the contrary, there are very few archaeological evidences as the entire coast has not yet been surveyed with scientific archaeological methods. Whatever data has been recovered gives a cloudy glimpse of the maritime history of Orissa. Although some archaeological and ethnoarchaeological (mainly on seafaring boats at some pockets of coastal Ganjam and Puri) survey were conducted on the coast as also around the Chilka Lake but the work carried out were not sufficient and do not give any clear picture about the overall archaeological and ethnoarchaeological aspect of the coast. Even

they do not portray any clear picture about the development of events like initiation of seafaring as also establishment of commercial contact with different parts of the world. This has been corroborated with the sporadic presence of ceramic and numismatic remnants. But if we will observe the elaborate description about the seafaring activity of the people of the coast of Orissa in literature, it seems to be an exaggeration. This may be due to lack of proper and systematic exploration and selected excavation at some of potential port sites.

The recent archaeological exploration conducted by the Orissan Institute of Maritime and South East Asian Studies under the instructions of Shri Gopinath Mohanty, Commissioner-cum-Secretary, Department of Culture, Govt. of Orissa, resulted in the discovery of ten port sites belonging to the Gupta period. The most spectacular discovery is that of a submerged township with archaeological material datable to the Early Historic period which is very extensive in nature and at present the foundation of mud houses along with pottery and other antiquities are traced just along the shoreline. A multi-disciplinary approach was applied while conducting the fieldwork by incorporating ethnographic, sculptural and ecological

parameters to interpret the sites and their relationship with trading and overseas activities and deforestation due to increase in settlements and wood and timber used extensively for purpose of fuel, construction and also building watercrafts. This survey, conducted in the Kantiachara river catchments, which receives ample breakwater, also solved the problem of identifying ports datable to the Gupta period which was in fact not present in the south Orissan port sites. Most probably the major ports of south Orissa became defunct owing to several natural as well as man made problems like heavy siltation and bifurcation of channels due to irregular flood activities. In this situation, the seafaring activities were concentrated in the north Orissan coast, especially in Balasore district. Small rivers and break-water receiving channels were selected for establishment of ports as evident from the recent survey conducted along river Kantiachara. The finding of Gold coins of Kumaragupta I with having a horse rider on the obverse and a deity offering flowers to a peacock on the reverse clearly suggest the flourishing of ports in the area during the Imperial Guptas. Cultural material found from both explorations and excavations at South Orissan port sites do not represent Gupta antiquities and surprisingly they are absent at Manikapatana-Palur Harbour complex, the most flourishing port sites in Eastern India which has a long history of being an international terminal for more than 2000 years (The author has extensively analyzed the excavated material from Manikapatna-Palur Harbour Complex stored in the Orissan Institute of Maritime and South East Asian Studies, Bhubaneswar).

Ecological Background

The coastal plains are one of the five geomorphological parts of Orissa (Sinha 1971).

Orissa lying on the eastern coast of India, has a coast line of about 480 km. Sinha (1971:5) summarized the important features of the coastal plains of Orissa which extend from Suvarnarekha in the north to the Rishikulya in the south. Orissan coastal plains are known as a land of six deltas- the Suvarnarekha, the Burhabalang, the Baitarani, the Brahmani, the Mahanadi and the Rishikulya. According to their locations, the coastal plains can be termed as the north coastal plain (the deltas of Suvarnarekha and Burhabalang), the middle coastal plains (the combined deltas of the Baitarani, the Brahmani and the Mahanadi), and south Coastal Plains (the Rishikulya plains). Orissan coastal plains are narrow in the north, widest in the middle and narrowest in the lake Chilka coast. There are parallel belts in the coastal plains also.

The Chilka lake which is situated along Orissa coast at the southwest corner of the Mahanadi delta and is the largest coastal lagoon in Asia with a length of 64 km and tapers towards south. The western and southern margins of the lake are fringed by the Eastern Ghat hill ranges. The lake is separated from the Bay of Bengal by a belt of about 4 km wide sandy beach ridges and barrier spits lying to the eastern side of the Lake (Mahalik 2000: 1-15).

Ancient Port Sites of Orissa

In recent years a number of port sites have been brought to light on the coast as also in catchment areas of river mouths. These port sites have yielded a handsome amount of ceramic assemblage, antiquities, coins, inscriptions etc. but unfortunately they have not been subjected for analysis or any interpretation. Similarly, so far, there is no expedition to search for ancient shipwrecks and anchors. Hence, a large portion

of the maritime history of Orissa is in mystery. If the description in literatures is to be believed, there must be a chance of the discovery of ancient shipwrecks and anchors. Stone anchors picked from port sites are being used as lintels and doorjambs in several villages of Karnataka, Goa and coastal Maharashtra (Gaur et al. 2000: 67-74; Tripathi and Gaur 1997: 51-57; Tripathi et al. 2004: 28-41). Similar ethnographic parallels can also be implied in Orissan context too. There is every possibility of finding stone anchors and other associated material either *in situ* or being used by the local village communities for construction purposes.

There is elaborate discussion in several texts about the existence of a number of port sites and port towns in ancient Orissa. They are as follows:

The Greek classical text "The Periplus of the Erythraean sea (1st century A.D.) by an anonymous author mentions several ports and coastal towns such as Broach, Uzane (Ujjain), Sopara, Kalyana, Muziris, Mosalia (Muslipatna), Dosarene (Coastal Orissa), etc. Periplus further says "Dosarene" was famous for ivory". Ptolemy's Geography (2nd century A.D.) mentions several ports in the coastal Orissa like Kambysion near Hoogly, Manda, Munde or Mandu river mouth (possibly mouth of Mahanadi), Kannagara (near Konark), Kati Kardama (near Cuttack) and Palura (Poloura of Ptolemy). He says Palura as a major port of eastern India for sea-voyages to South-East-Asian countries/Islands. It was the point of departure (apheterion) for ships bound for Khryse (South-East Asian). The Periplus Tex Exo Thalasses compiled by Marcian of Haraklea (between 250-500 A.D.) also agrees with the point of departure (apheterion) as Palura. According to Ceylonese chronicles Datha-Dhatu-Vamsa, Dipavamsa, Chullavamsa and Buddhist

text Mahagovinda Sutta, Kurudhama Jataka and Mahavastu refer to Kalinga's Capital as "Dantapura" a port town, from where the "Tooth relic" was transferred to Ceylon. Chinese Pilgrims Fa-Hein and Hiuen-Tsang who visited Odra in 639 A.D. mention a famous port "Che-li-ta-lo" near the shore of the Ocean (Waters 1988).

In the last three decades exploration of ancient, medieval and late port towns in coastal Orissa were undertaken and as a result a number of port towns were brought to light. The only problem was to correlate and identify them with the descriptions in literature. The port sites explored so far are Kalingapatanam, Barua, Sonapur, Mantridih, Ganja, Kantiagarh, Palur, Prayagi, Manikpatna, Sanapatna, Badapatna, Arakhkuda, Banjiapatna, Boitkud, Astranga, Harishpur, Marichpur, Chandbali, Narendrapur, Dhamra, Chudamani, Balasore, Talchua, mouth of Survarnarekha (old Pipili), Shah Bandar, Kansabansa, Panchubisa, Chandipur, Kasaphala, Kirtania, Talsari and Tamluk. Kalingapatnam, the mouth of river Vamsadhara was, once upon a time, the capital of Kalinga. Its maritime link has already been established and the Archaeological Survey of India has excavated a site near Kalingapatanam and unearthed the materials datable to 3rd century B.C. Barua Bandar on the mouth of Mahendra Tanaya river has been described by various authors and even in the "Gangavamsanucharitam" of 18th century. It was also a famous port directly linked with Puri. It is also clear that the ports of India, during the Early Historic period were connected with each other as revealed from the archaeological material found on them.

Chilka as Natural Harbour

Chilka Lake was considered to be a natural harbour and thousands of ships were floating on

it. The Bramhanda Purana (10th century A.D.) mentioned the maritime activities of Chilka Lake where thousand of ships were floating for trade to Java, Malaya, Singhala and China and other island countries. Extensive and intensive explorations in the lake area has resulted in the discovery of a number of port sites which were very much active during the Early Historic period as evident from the archaeological remains at several sites (Mohanty and Tripathy 1998: 69-98).

Overseas association of Orissa

The sailors of Kalinga reached South-East Asia in very early times but unlike Tamil texts of Sangam period, they have not left any record of their trading voyages. It is to be mentioned here that the Tamil Text "Silapaddikaram, Manimekhalai, Nakkirar, Mullaipattu" and others provide mines of information of the sea-trade between South India and Southeast Asia as also the Roman world. In the absence of any direct evidences to Orissa we will have to depend upon the scattered references of other regions. The available evidences indicate that, from the beginning of Christian area, monks, merchants and adventures continued to visit South-East Asia and generally they voyaged from the Orissan port sites.

Archaeological Evidence

Archaeological evidence of Orissa's maritime heritage has been emphasized by various scholars (Basa 1993: 351-365, 1997: 730-741; Behera 1977: 115-121; 1994: 55-70; 1995: 4-6; Pattnaik 1997: 697-717). These include various potteries, beads, medallions, clay bullae and caltrop unearthed in Orissa and other countries. But the amount of archaeological material available so far does not give a clear

picture of the overall aspect of material culture pertaining to the seacoast and this lacuna is completely due to the lack of systematic archaeological fieldwork along the coast by following foot-to-foot survey.

Quite a few archaeological artifacts help us ascertain maritime trade network of Orissa from the Early Historic times to the late 18th century A.D. Important among these are imperishable materials such as Northern Black Polished Ware (NBPW), Rouletted Ware, Knobbed Ware, Stamped Ware, Footed Ware, Amphorae, Glass and Semiprecious Stone beads and seals and sealings, tablets with inscriptions in Brahmi and Khorasthi. The archaeological evidence so far obtained from coastal archaeological sites and their importance in terms of trade and exchange network as also the local patterns are given below:

Northern Black Polished Ware

The Northern Black Polished Ware is usually made of superfine Ganga Clay. It is well-fired, thin in section and has a striking lustrous surface. It was a precious deluxe ware and was used by the elite class of the society. This ware has mostly been found as bowls, dishes with carinated handles and spouted jars. The chronology of NBPW in the middle Ganga plains ranges between c. 700 B.C. to 100 B.C. (Makkhan Lal 1984: 94). Several sites in South Asia which were outside the orbit of Mauryan empire also yielded this type of ceramics which included even some hinterland sites. The sites include Mahasthan and Wari Bateswar (S. Husne-Jehan 2002:127-138) in Bangladesh, Chandraketugarh-Tamluk complex, Radhanagar, Langudi, Narla-Asurgarh and Budhigarh, Sisupalgarh and Manikapatana in Orissa, Nasik,

Ter, Brahmapuri in Maharashtra, Amaravati and Dharanikota in Andhra Pradesh, Chebrolu and Alagankulam in Tamilnadu, Korkai, Rajgir, Sravasti, Vaisali, Pataliputra, Kausambi, Ujjaini, Vidisha, Sanchi and Saranath (in the core areas of Mauryan empire). Even some neighbouring countries of India such as Udegram, Charsada and Taxila in Pakistan, Tilaurkot in Nepal and Anuradhapura-Gedige in Sri Lanka yielded this ware. Out of the above sites most of the sites were related to Buddhism but evidence of finding them in port sites and from inland sites like Sisupalgarh, Manikapatana which were originally not related to Buddhism but served as a major centre and port, respectively. It is also mention worthy that in most of the sites NBP has been found in association with punch-marked coins.

The chronology and distribution pattern of the NBP clearly indicates interaction among South Asian countries between 700 B.C. and 100 B.C. and with Orissa from at least 3rd/4th century B.C. The findings of two sets of Asokan Edicts as also the finding of NBPW in coastal as also in western part of Orissa is significant.

Rouletted Ware

Rouletted Ware found only in the shape of a dish is so called because of Rouletted decorations of a variety of forms including triangles, diamonds, parallelograms, wedges and dots. This type of pottery is usually wheel thrown and slipped with unusually smooth surface. Its usual colour is grey and has a ring, which sounds metallic. It was first discovered at Arikamedu in the east coast of south India. Later on several sites like Chandraketugarh-Tamluk in West Bengal, Alagankulam and Karaikadu in the east coast of south India, Kantarodai, Manthai and Tissamaharama in Sri Lanka, Bukit Tengku

Lembu, Kobak Kendal and Cibutak and Sembiran in Indonesia, Tra Kiu in Vietnam and Berenike in the Red Sea Coast also yielded this pottery. In Orissan context this ware has been recovered from the Early Historic sites at Sisupalgarh, Manikapatana and Radhanagara. The finding of this ware in Orissa is significant as this pottery is uniform in nature wherever they are found. There are evidences of local made Rouletted ware also but their appearance is very scan. The XRD pattern of Rouletted Ware was carried out by V.D. Gogte of Deccan College (1997: 69-85) and as per the analysis it was found that the soil for Rouletted Ware was quarried from Chandraketugarh-Tamluk region of West Bengal. The finding of this ware is significant in terms of Early Buddhism and trade of India and Southeast Asia. As per Ever's criteria, there can be no doubt that Rouletted Ware featured in a "typical inventory of trading goods". Furthermore, because most of these sites were centers of Buddhism (except Sisupalgarh) and trade was originally connected. It could be assumed that Buddhist religious establishments provided religious homogeneity to traders, very much like the NBPW.

Knobbed Ware:

Knobbed vessels are so called because at the centre of the inner surface of the base sherd, a conical knob which is circumscribed by a number of concentric groves (generally three to four engraved spiral motifs). This ware has been found both in earthen and high tin bronze forms. The Knobbed Ware, which is made of terracotta, has been discovered in various sites in South Asia. This variety of ceramic type was earlier named as Grooved Ware (Tripathy 2007 in press) as it was not provided with the present terminology "Knobbed Ware". This ware has been found in

several sites of Bangladesh (Wari-Bateswar and Mahasthan), Harinarayanpur, Sisupalgarh, Marjakud, Manamunda-Aurgarh, Radhanagara and the Early Historic sites Kalahandi district of Orissa and Anuradhapura in Sri Lanka.

The distribution pattern of the ware indicates that the ware was produced in the Early Historic period (c. 3rd century B.C. to 3rd century A.D.). The function of Knobbed vessel has been in uncertainty. According to researchers the ware was used for identical purpose, which was not secular or utilitarian such as cooking and serving food. As Glover (1990: 139-184) rightly observes "they possibly served some special purpose for ritual and funerary use only. He interprets the motif of the base knob and concentric circles as a mandala, a schematic cosmological symbol representing perhaps mount Meru and the surrounding oceans. He further points out that the vessels are 'witness to the adaptation in Thailand by some groups of Indian moral, philosophical and political concepts'. Although there exists no definite proof of exclusive Buddhist connection a possibility. The chronology and distribution of Knobbed Ware is another definite indicator of contact among south and Southeast Asian countries from 3rd-4th century B.C. to 3rd century A.D. nevertheless, the ware also demonstrates close proximity to Buddhism and trade guilds. The finding of this ware in plenty from Orissan coast as also in the hinterland is very significant.

Amphorae

Elongated jars with tapered bottom and handles attached to the sides, amphorae were used in ancient times as containers for transportation and preservation of edible material, both liquid and solid like wine, oil, vinegar, honey,

olives, fruit, fish (preserved in salt or in oil) (Colazingari 1994: 154). Fragments of imitation of amphorae have been reported from the early historical period at Manikapatna, a fine piece of amphorae is reportedly found from Karanji village, very far from Jayarampur on the border of Orissa and West Bengal (Basa & Behera 2000: 566-600). Out of 27 sites in India where Amphorae sherds have been found in Orissa the site of Manikapatna yielded a piece of fine amphorae (Pradhan et al. 1996: 20-23). Amphorae are often cited as the most important evidence of maritime trade with the Mediterranean world. The recent analysis of pottery and antiquities of Manikapatna, stored in the Orissan Institute of Maritime and South East Asian Studies, revealed several fragments of amphorae sherds of Mediterranean origin as also Dressel IV varieties with incrustation marks. Residue analysis of these sherds would throw light on the material carried in it.

Moulded Ware

Innovation of using a mould for ceramics was first encountered in the Deccan at the site of Nevasa, Ter, Kolhapur and Kandarpur (Excavation Reports by H.D. Sankalia, Deccan College, Pune). The port site of Manikapatna and Radhanagar yielded a good number of Moulded Wares which shows cultural and trade contact of the people of Orissa with that of sites in the Deccan.

Stamped Ware

The Stamped Ware with having floral motifs have been reported from several Early Historic trade centers in India and from Orissa the evidence comes from the excavations at Manikapatna. The recent explorations and excavations conducted at and around Radhanagara revealed several pot sherds with

lotus-wheel stamps, rather a symbol pertaining to Buddhism. Similar types of pot sherds have also been recovered from the excavations at Manikapatna which speaks of some sort of relationship between Radhanagar and Manikapatna during the Early Historic period.

Chinese Pottery

Chinese ceramics have also been obtained from coastal Orissa through both excavation and exploration (Behera 1995: 4-6). Manikapatna and Khalakatatana in Puri district have yielded Chinese ceramics from excavations. These have also been collected from port towns of colonial periods such as Ganjam and Balasore through surface exploration and excavation. Chinese ceramics included celadon, white porcelain, blue and white and brown glazed porcelain sherds. Thus, the recovery of Chinese pottery on Orissan coast in medieval time was part of the trade network between China and Persian Gulf and east Africa region during 13th-14th centuries A.D.

Besides this, evidence of the ceramic types from Java and other Southeast Asian countries comes from the site of Manikapatana which no doubt served as the prominent port establishment for more than 2000 years. Hence, it is imperative to take up a systematic horizontal excavation at the site to have a clear understanding about the ancient navigation, material culture as also the socio-economic pattern of ancient coastal Orissa.

Semiprecious Stone

Orissa proved to be the best source for precious and semi-precious stones as more than 28 extensive gem belts have been identified in the upland Orissa and are found in all most all Early historic sites in the State. As evident from Ptolemy's Geographia (Majumdar 1927) precious and semiprecious stones were transported as the

principal commodity even to the Roman World. These gemstones were generally exploited from the river valleys of the Mahanadi and Tel and were traded from Early Historic sites in western Orissa such as Marjakud, Kardi, Manamunda-Asurgarh of Boudh District as also from Narla-Asurgarh, Budhigarh, Kharligarh, Nehena in Kalahandi and Nuapara Districts, respectively and were subsequently traded to the coastal port sites through the river Mahanadi only (Tripathy 2000:60-67; 2002; 2005: 69-79; 2007). The traders, especially gem traders never followed the land route following the river Mahanadi as it was risky for robbery. This ethnographic observation (Tripathy 2005: 69-79) has also been corroborated in the literary as also in the travel accounts of the British merchants (Acharya 1955). The coastal part of Orissa is devoid of gem deposits and hence the hinterland Orissa was connected for the purpose. About 120 beads of carnelian, agate, and chalcedony have been found from the excavations at Sisupalgarh (Lal 1949: 62-105). Evidence of manufacturing of beads have been reported from Jaugada in Ganjam district (IAR 1956-57:30-31), Narla-Asurgarh (Sahu 1982: 1-8) and Marjakud (Tripathy 2002). Besides this, semiprecious stone beads have been found associated with each most of the Early Historic sites of coastal Orissa like Radhanagar.

Manikapatana Excavation

Manikapatna is approached via Puri and is situated on the left bank of a channel on Chilka (locally known as Tanda) which connects with sea near Arakhakuda. The site was excavated in a limited scale by the Orissan Institute of Maritime and South East Asian Studies which proved Manikapatna to be one of the most active and flourishing port establishments on the east coast of India.

The excavation revealed cultural deposits of two periods Period-I and Period-II. The deposits of Period-I yielded two Neolithic celts, shreds of Rouletted Ware, fragments of Amphorae, two Puri-Kushana copper coins, a sherd with Kharoshti script with legend "Dasatradeva" and "Khida", stamping design on pottery, sprinklers, spouts, Kaolin pottery, terracotta miniature figurines of bird, horse, terracotta smoking pipes, game pieces, areca-nut beads, lamps with human figure and Black and Red Ware, Northern Black Polished Ware, Red Polished Ware, Black Slipped Ware, Knobbed Ware, etc. This period can be dated from 3rd-4th centuries B.C. up to 4th century A.D. with the end of the Period-I the site was probably abandoned and a long time gap is marked by the sand deposit of two meters and was again functional during the 9th/10th centuries A.D. and continued till the British period.

The discovery of Rouletted Ware and Amphora pieces of Mediterranean origin speak of trade link with the Roman World, if not directly. The discovery of Kharoshti inscription with legend is first of its kind in whole of Orissa. Archaeological excavation in Sembiran in North-Eastern Bali has also yielded Rouletted Ware, shreds with Kharosti character and hundreds of glass beads (Ardika 2007-forthcomming). Scientific Analysis (X-Ray Diffraction) of Rouletted Ware from Sembiran (Bali), Arikamedu (India) and Anuradhapura (Ceylon) are very similar and Rouletted Ware found in Kobak Kendal and Cibutak in North-West Java. Rouletted Ware of Manikapatna is also similar to the Rouletted Ware of the above places. The discovery of Roman amphorae at Manikapatna leads us to support the view that probably the Romans had direct trade contact with ancient

Kalinga/Utkala (Gogte 2000: 681-689). The finding of numerous iron nails used especially in ships and boats as also hundreds of ring-wells clearly suggest that Manikapatna was an international terminal for repairing ships as also to fill drinking water. The site also revealed a number of antiquities in terracotta, stone and glass. Several brick and stone structures were also exposed during the excavation. The site also revealed a wide array of pottery from foreign countries including Moulded Ware, Stamped Ware, Chinese Celadon and Porcelain Wares, Egg-White and Chocolate Glazed Arabian Ware, Brown Glazed Burmese Pottery, etc. (Tripathy 2006: Personal Observation).

Art - Historic Evidence

In several temples of Orissa, the maritime activities have been depicted in the form of sculptures, inscriptions and relief drawings. The earliest representation of a ship comes from a sculpture stored in the Orissa State Museum, Bhubaneswar, actually found near the Brahmeswar temple complex. The panel depicts two ships, one fully intact and the other partly broken with standing elephants at the frontal end. Two persons are seen seated and two sailors are shown steering the ship with oars in the rear end. The second one depicts a standing elephant on its frontal portion. Below the ships, graphic depiction of waves with aquatic and amphibious animals can be observed. However, it may also suggest that probably the sculptural panel depicts the transportation of elephants from ancient Kalinga by ship to other countries. The panel may be dated according to its sculptural representation to the Early Medieval period.

A scene is also located with an oar at Deokund in Mayurbhanj district where goddess

Ambika is shown seated on a boat which is very significant and shows the association of the deity with seafaring and navigation activities. At Sun temple located at Konark also there are Bhairava images which are depicted in dancing form performed on boats. A stone medallion depicting a boat was also recovered at Konark and at the front end of the boat is a figure of an attendant holding a parasol while next to him are seen one standing and one squatting figure; the latter is without his head. At the rear end of the boat are the helmsmen holding the rudder. Four men are seen rowing the boat. There is also the representation of a cabin inside which a man is sitting with bow and arrow. However, this scene can be corroborated with some epic scenes of the Ramayana. A Mahishamardini image, found near Brahmeswar temple shows the goddess engaged in a fierce sea-battle with the demon coming out of the trunk of a buffalo which is in fact a rare depiction.

Epigraphic

There are several epigraphic related evidences on the sea-faring activities of the coast. The locations of Asoka's Minor Edicts at Dhauli (Near Bhubaneswar) and Jaugada (ancient Somapa and present Pandia village in Purushottampur NAC of Ganjam District, suggest that existence of a coastal route from Tamralipta to the Andhra coast as evident from several sites located at a distance from the seashore like Sisupalgarh and Jaugada and even Radhanagar. The Hathigumpha inscription (c.1st century B.C.) mentions that king Kharavela defeated the southern confederacy and earned a lot of wealth in the form of precious stones, pearls and jewellery. There are also several Javanese and Bali epigraphs which record about the people of Kling (Kalinga) as also their overseas trading

activity. Some of the inscriptions of the Bhauma dynasty also speaks about the tax system prevailed in the port sites of ancient Orissa (Samudra kara Bandha).

Numismatic

Roman coins are found in the entire coast as also in the hinterland which speaks about the trade activity of the people with the Roman Empire. But, very less number of ancient coins have been found so far from both explorations, especially at Radhanagar (Misra 2000: 507-550) and excavations carried out at Manikapatana (Pradhan et al. 1996: 120-23) Khalkhatapatana (Nigam 2000: 495-506) and they have been dated to the 11th to 14th centuries A.D., respectively. On the contrary the adjoining states of Andhra Pradesh and West Bengal have revealed several Roman Coins in both excavations and explorations (Warmington 1974). This may be due to lack of explorations and systematic excavations conducted in the Orissan coast.

Literary

Literary references to the maritime tradition of Orissa are found from four types of sources Western Classical, Indian, Sri Lankan and Chinese (Behera 1994: 55-70). Kalinga's commercial importance and association with the Bay of Bengal is evident from western classical texts such as the Periplus. Ptolemy's Geographia and Pliny's Natural History. Among the Indian literature, the most well known account about Orissan maritime tradition is from Raghuvamsa as it mentions *dwipantaras* from where breezes filled with the fragrance of cloves blew. This implies trade in cloves.

Besides, several other works like *Parimala*, *Prastava Sindhu*, *Rasa Kallola* and *Lavanyavati* mention about sea faring activity of the people of

Orissa. Maritime heritage of Orissa is also attested by Sri Lankan literary and epigraphic sources. The Datha Dhatu Vamsa records that the sacred tooth relic was taken from Dantapura of Kalinga to Sri Lanka.

The Chinese sources also reveal the Orissan maritime heritage. Hiuen Tsang mentions about Che-li-Talo "near the shore of the ocean" which was a thoroughfare and resting place for sea-going traders and strangers from distant land. Several Oriya Buddhist scholars like Sudhakara Simha and Prajna also visited China as there was plying of large vessels between the two countries which had hundred other passengers. Besides, there are also several epigraphic and folkloristic evidences pertaining to the maritime activity of Orissa.

Ports of Orissa

Among the ancient ports which find mention in several literary and epigraphic records are Tamralipti, Che-Li-Ta-Lo, Manikapatana, Khalkatapatana, Gaurangapatana, Palura, Pithunda and Kalingapattinam, etc. Besides, the most spectacular remains of Rambha Bay are the two massive breakwater-like stone alignments located at the foothill of Ghantasila and Nandighar on the bank of Chilka. This breakwater alignment was specifically meant for ships to protect them from strong waves as well as the southwesterly and northwesterly winds (Mohanty and Tripathy 1998: 69-98). There is actually no archaeological remains of boat found from Orissa except at Olondaz Shahi, Balasore.

The port of Tamralipta finds mention in the Mahabharata, Indian and Colonial Literature and in the Chinese and Greeco-Roman accounts. Tamralipti now exists in the state of West Bengal. The port site of Che-Li-Ta-Lo mentioned by the

famous Chinese traveller Wuang Chwuang (Hiuen Tsang) in the 7th century has not yet been satisfactorily identified. The excavations at Khalkatapatana by the ASI under the direction of Late B.K. Sinha gives some clue for the identification of this site with that of Che-Li-Ta-Lo but it is not adequate as the site did not reveal any material dating back to the pre-Christian era and the early part of the Christian eras. Palur was a famous port site which has been corroborated in the famous Geographia of Ptolemy and in which he refers Palur or Poloura as a reference point in preparing his map. According to him Palur was the only port to have a voyage to the Coromandel Coast. Kalingapattinam was another important port of Kalinga in the mouth of river Nagavali in the Srikakulam District of Andhra Pradesh. The name itself means the city of Kalingans. Besides being a famous port throughout the ancient period was also the capital city of Kalinga. The archaeological excavations conducted here suggest that it was a fortified city since 3rd century B.C. The port city of Pithunda as a metropolis has been mentioned in the Hathigumpha inscription of Kharavela which was occupied by Kharavela in his 11th regnal year. Ptolemy too refers to a metropolis called Pitundra and locates it in the country of Moissolia between the mouth of the Godavari and the Mahanadi. The Periplus of the Erythrean Sea describes that the sailor proceeded eastward from Masalia and reached the Bay to reach Dosarene which had a good breed of elephants called Bosare (McCrandle 1973:145). Khalkhatapatana, 11 km from the Sun temple Konark, located on the banks of Kushabhadra river was excavated and established it as a port city of the 14th century A.D. Some important Chinese pottery and coins have been revealed from the excavation.

The available sources such as the epics, Jataka stories, epigraphic, numismatic, ethnographic and archaeological artifacts focus the light on the trade and cultural contacts of Orissa with distant overseas countries through the ages. In spite of several hazards and problem of piracy the Orissan seafarers undertook maritime trade for the sake of wealth. The archaeological findings at Sisupalgarh, Manikapatana, Palur, Radhanagar, Jaugada, Khalkatapatana show that trade was flourishing up to the Gupta period. As archaeological evidences do not show any continuation of the activity, it is generally understood that overseas trade was collapsed partly during the period between the Guptas and the Bhaumakaras. This could be due to lack of thorough survey. The excavations at Manikapatana provides us an unbroken cultural succession right from 3rd century B.C. to the late 19th Century in the form of ceramic and numismatic (especially Chinese) evidences with a limited gap of almost 500 years. During this period, maritime and overseas transactions were carried out in North Orissan ports especially in Balasore district following small break-water receiving channels like Kantiachara and others.

The trial excavations at Manikapatana brought to light pottery of both indigenous and foreign origin. Along the east-coast of India, Manikapatana is the only site from where varieties of pottery have so far been reported. The presence of pottery, coins and art evidence indicate the impact of early sea trade and voyage between Orissa and the Mediterranean world, South and Southeast Asia. The discovery of Rouletted Ware all along the east coast and semiprecious stone beads demonstrates the evidence of seafaring activities of the Oriya people. The evidence from Manikapatana proves

the east and west maritime trade relations. With the increase of Roman influence along the Indian coast, the Indian traders left for Southeast Asian countries in search of spices and sandalwood. Based on the available references and archaeological findings in Orissa, Southeast Asian countries and other localities it is clear that the sailors knew about these lands and the products. It is worth mentioning here that historians have believed the weak successors, economy under the feudatories, attack by neighbouring kingdoms, imposition of taxes and unskilled navigation contributed to the decline of maritime activities of Orissa. In addition to this, it is noticed that the geological processes such as the coastal erosion, sea-level changes, tectonic activities, natural hazards, sedimentation and formation of sea bars and dunes in the navigational channels are equally responsible for the decline of ports in Orissa (Tripathi 1992-93: 50-53).

It is known that Balasore (Olondaz Sahi) and Konark were the ancient ports, which are presently 15 and 4.8 km away from the seashore, respectively. This indicates that there were heavy sea-receding processes and as a result the sites are located at a distance from the present seashore. Hence, it is imperative to take steps while conducting systematic explorations on the coast with site catchment method in the background. Ahmed (1972) states that this change has happened due to the uplift of land from the shoreline. Chilka was a busy port in the historical times and sedimentation caused the disuse of ports. The diversion of river course due to the formation of sand dunes made the Palur port non-operational. To understand in detail the geological processes from archaeological point of view no systematic studies have been carried out along the coast of Orissa. The coastal survey

and offshore explorations at strategic locations and excavations at new sites as also already excavated sites, comparative study, scientific dating of objects will no doubt yield valuable data on the history of sea-voyage activities of the Oriyas.

Hence, it is also clearly evident that the coast of Orissa played a significant role in the maritime history of eastern India due to its suitability for establishments of ports. Besides, several perennial rivers have their meeting point in Orissa. These points also gave ample facility for building of ports. Thus, it is clear that if surveyed systematically by following scientific methods hundreds of archaeological sites will come to light and a complete history of maritime heritage of Orissa will be represented which is rather neglected by scholars and archaeologists for years together.

In recent years there is a lot of disturbance in the sea level due to several natural (for example recent Tsunami) and man-made factors such as large-scale deforestation of coastal mangrove and savanna type of vegetation. Hence, there is a great danger for the existing archaeological heritage and early maritime centers. There is an urgent need to document, retrieve, salvage and study the maritime heritage before they are lost for ever.

Hence it is imperative to take up foot to foot survey of the entire coast in a planned and scientific manner to collect and salvage archaeological material and to establish a chronology of events and cultural periods in a diachronic fashion which can be depicted in the Marine Archaeological Heritage Gallery in a story-telling way. It is unfortunate to mention here that despite a large and extensive stretch of shoreline and the lake Chilka in Orissa, the Orissa State

Museum does not have a Maritime Archaeology Gallery which is indeed an urgent necessity for the State.

The main purpose behind this research is to establish a gallery on maritime history with various activities related to it in the precinct of the Orissa State Museum. This is also an attempt to be a part of the New Museum Movement which will depict a chronological human history with all types of human activities in an elaborate manner.

The following objectives and methodology is imperative to be taken up for the retrieval and documentation of the maritime heritage of Orissa by implying archaeological, ethno-archaeological, ethno historic with sufficient scientific input like absolute dates, satellite imagery of sites and their environment, in the background:

- To locate, document and retrieve archaeological material from sites with appropriate contextual approach.
- To locate and salvage shipwrecks, anchors and other remnants of the navigation heritage of Orissa.
- To develop a data base for coastal archaeological sites, port sites as also pilgrimage sites associated with traditions and legends on sea-faring, boat making, navigation, trade and trading material.
- To establish Orissa's ancient trade (overseas) in a global perspective. Besides, an emphasis will be laid on the contacts of the coast with the hinterland for various raw material and finished products, forest produces as also gemstones.
- To prepare a database or various antiquities, both indigenous and alien to

- have a clear understanding on the material culture of the people.
 - To emphasize the role of Orissan coast in diffusion of trade, culture, religion and ideology through the ages.
 - To emphasize eco-tourism and aqua-tourism by providing historical background to some of the potential places of tourist interest.
 - To discuss various processes of sea action which affects the existence of archaeological sites due to sea-level change, over high-tidal pressure, uneven ocean current in the post-Tsunami east coast.
 - To discuss the importance of the area in terms of overseas trade and its cultural relations with China and southeast Asia and the Roman World through archaeological and linguistic material.
 - To collect ethnographic data related to ship/boat making, trade and exchange pattern, communities associated with boat making, rituals, festivals associated with trade and boat building.
 - To identify ancient places mentioned in literature systematic data will be collected by ethno-historic and folkloristic evidences.
 - To attempt a holistic archaeological perspective on coastal archaeological sites based on the principles of Post-processual approach.
 - To establish absolute chronology of coastal archaeological sites based on relative and absolute methods.
 - To salvage archaeological and archival material from endangered sites located at a close proximity from the coast.
 - To establish galleries on overall aspects such as cultural, material, navigation pattern and demonstration of ancient shipwrecks and anchors.
 - To publish the work in several volumes on specific themes in collaboration with the Orissa State Museum.
- Methodology :**
- To draw a holistic picture of the coastal archaeological heritage the following multi-disciplinary methodology will be implied during the field survey:
- Intensive and extensive field survey of the entire coast from Andhra Coast to Bengal Coast which will be based on both foot to foot survey as also village to village.
- (Topo-Sheet 1:50,000 Scale) Satellite Imagery Photographs of some of the important pockets of the coast especially of false points and confluences.
- Systematic plotting of archaeological sites will be made at each and every archaeological site.
 - Section scrapping will be conducted to determine the geo-stratigraphy and cultural stratigraphy.
 - Archaeological material will be collected systematically and possible trial pits will be laid at some of the excavated sites like Manikapatana, Palur, Khalkatapatana etc. to represent a sequence of cultures in the Museum demonstration gallery.
 - Trial trenches will be taken at some of the potential sites to obtain the cultural sequence.

- Ethnographic, ethno historic and folkloristic information will be collected to supplement the archaeological data.
- Relevant archival material will be collected to support the archaeological potential of the coast.
- Analysis of the ceramic assemblage on the basis of thin section analysis and X-Ray Diffraction analysis to understand trading pattern.
- Botanical remains from stratified context will be subjected for palynological studies to understand exotic pollens.
- Faunal material will be subjected for fluorine phosphate analysis to obtain relative dating. Identification of rare aquatic as also terrestrial creatures will be done in the Archaeo-zoology Lab. of Deccan College. This will give an idea about some of the extinct species.
- Organic remains such as bone, charcoal, wood, etc will be subjected for both C14 and TL dating methods.
- A thorough scan of the literature encompassing religious, secular, historic, colonial, post colonial and traveller's accounts will be taken into consideration to interpret the archaeological data.
- References will also be collected from existing folklores, legends, customs, traditions and beliefs.

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Ports of Baleswar in the Maritime History

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Orissa has a long maritime history and tradition, which had developed owing to its close contact with the sea, stretching to a vast length on its eastern front. The eastern sea or modern Bay of Bengal was known in the past as the Kalinga Sagar, being dominated by the ships of Kalinga. Even all islands in Kalinga sea used names as Kalinga Desha is mentioned in the 'Arya Manjushree Mulakalpa.' Baleswar played a distinct role in shaping the maritime greatness of Orissa since earliest times.

A number of large and small rivers like Rup Narayan, Suvarnarekha, Budha Balanga, Kansha Bansha draining here into the Bay of Bengal, made the coastal line of Balaswar district so curved that in the entire coromandal lines, it has got highest number of ports, great and small. Among them Tamralipti, Pipli, Baleswar, Dhamra and Chandbali figure prominently in the annals of maritime history. Chhanua, Saratha, Chudamani and Lychanpore were small ports, which are less prominent for trade and commerce. The existence of these natural ports made Balaswar region prosperous and well-developed commercially, culturally and politically. These ports served as the medium of export and import not only to the merchandise but also of culture and civilization.

Five European Companies raised their commercial settlements here and the seaborne trade of Eastern India was conducted from here to a great extent. Around 1625 the Portuguese settled their trading centre. In 1633 they were followed by the English factors in establishing their settlements. The Danes around 1636 had their factory in Baleswar. The Dutch seems to have entered into Baleswar during the same period. Sometimes between 1673-93 the French also established their factory there. Of all the European companies, the English, the Dutch and the Danes had a greater share in the maritime trade of Baleswar Port.

Apart from the European merchants, a good number of Baleswar merchants played significant roles in the commercial as well as in socio-political life of Orissa and Bengal mostly during the 17th century. They were Khem Chand, Chinta Mani, Nai Das, Hira Shah, Gokhal Chand, Rajaram, Enayet Khan, Yusuf Khan, Gangaram, Sibaram, Nilu Shah etc. Among them Khem Chand and Chintamani Shah were the outstanding figures. These two merchants were generally referred to in the records of British Company as the most influential merchants of Baleswar. For many years they acted as the chief brokers of the

European Companies at Baleswar for providing country's commodities to them and also absorbing imported foreign goods within the country-side.

The 'Brihat Katha-sloka-Samgraha', an important text of Gupta Age, refers to two types of sea-ports. These are (1) Pattana i.e. Sea-port, centre of import and export and (2) Dronamukha or Dronimukha i.e. a commercial metropolis, vitally connected with sea and river at the same time. *Silpashastras* too generally refer to such types of sea-ports. Tamralipti, Pipli, Baleswar being situated on the mouths of rivers naturally came under the Dronamukha category.

Before the Christian era the famous port of Tamralipti was a part of Baleswar region. It was situated in the mouth of the river Rupanarayan which is presently known as Tamluk, in the Midnapore district of West Bengal. One of the reasons for the Ashokan invasion of Kalinga was to gain control over the sea-ports of Kalinga in general and Tamralipti in particular. Magadha as such was a land locked country and Ashoka was in need of entry into the sea which was not possible without control over Kalinga. Tamralipti, situated at the apex of Kalinga was the single most important port of the entire east coast connected both by land and water with different parts of India and many other countries. This port find prominent mention in Mahabharat, in other Indian Ceylonese literatures and in the Chinese and Roman-Græco accounts. The 'Arthasastra' and Kathasaritsagar mention Tamralipti as a port and also as a trade emporium during the period from 4th to 12th century A.D. Besides Ptolemy, Fa-Hien, Hiuen Tsang, I-Tsing and many others have referred to this port. The great traveller Fa-Hien saw it as a strong maritime settlement of the Buddhist and left for China via Ceylon from this

port. Hiuen Tsang has mentioned that Tamralipti was 40 *yojanas* in circuit I-Tsing has estimated the distance between Nicobar and Tamralipti as 900 to 960 miles with a sailing time of about 15 days. It was believed that, Mahendra and Sanghamitra sailed to Ceylon with tooth relics of Lord Buddha from this port of Tamralipti. The Mahavamsa informs us that during ancient times the journey from Tamralipti to Srilanka took 7 days only.

During mediaval period the port was declined. The remains of this old port such as toll gates, warehouse, custom house, the wretched port roads exist now. Even the great temple Bargabhima which is believed to have been built by two merchants of Kalinga named Tapasa and Bhaluka exist at a short distance from the port. A new-port named Haldia in the mouth of this river Rupnarayan, now there developed, more than 25 kms away towards the receded mouth of the river.

During the time of Moghul, specially in the reign of Akbar, Pipli developed into important naval center. This famous port was situated in the mouth of river Savarnarekha. It was the earliest European settlement on the Bay of Bengal and soon flourished as an important harbour on the Orissan Coast. The Portuguese monopolised the entire trade on the coast and their fleet commanded the whole seaboard from Chittagong to Orissa for a century, from 1514 to 1615 A.D. In 1636, the Portuguese obtained a permission from Mutaqad Khan, the Nawab of Orissa (1632-1641) to establish an additional residency at Pipli.

Bowry mentions that Nawab's merchantile marine consisting of about 20 sails of ships with considerable burden was sent from Baleswar and

Pipli to Ceylon. Tenasarin, the richly loaded ship Crosiaha set out her voyage to London from the port of Pipli on 26th February 1700. Her cargo on board was valued about 8 lakhs of rupees. All the trade at Pipli was carried on by the river Suvarnarekha. It was also a great slave market where the Arakans and the Portuguese and others used to bring their prisoners. Between 1621 and 1640 the Portuguese pirates brought as many as 42,000 slaves of whom 28,000 were baptized and were sent to stations like Pipli, Baleswar etc. Dutch, Danes and Portuguese continued to hold their grips over the port of Pipli for a long period. Early in the 16th century the Portuguese Missionaries followed the traders and settled at Pipli. The Augustinians had built a church and residence at Pipli Port.

But consequently the Portuguese traders tried to exploit the natives and create conflict with local rulers. They made themselves as pirates, not as traders. They created direct hostility with the Moghul rulers who tried to destroy their settlements and churches in the coast. William Leyel who had been for some time at Pipli was entrusted to conduct the see-fight. He plundered a Moghul ship to recover their loss sustained at Pipli. In 1644 another Moghul ship was captured by them. In 1647 seven Moghul ships fell successively in the hands of the Dutch. Gradually Danish could plunder 30 ships during their 32 years of hostility with the local rulers. But they were not given any chance to avail the facility of trade and commerce.

With the silting up of the mouth of the river Suvarnarekha, the port of Pipli was deserted leaving some remnants of its famous maritime activities. There remained a ruined light house in

the village Balarampur near Jaleswar, which was a prominent trade center. At a short distance of two forlongs there was a grave yard of Portuguese settlers. On both sides of the mouth of Suvarnarekha, there were two forts. One is Kiratrajagarh in the eastern side and another is Shabandargarh in the western side. The present Khaidpiple, Jhadpippal and Pipli are synonymous to Pipli port. The famous Shiva Lingam of Lord Bhusandeswar in the mouth of river Suvarnarekha was perhaps brought here in a ship in those days.

In the entire coast of Orissa, Baleswar, situated in the mouth of Budhabalanga emerged as a prominent international port in eastern India during 17th century A.D. It was the best and most prosperous port for the reception of ships from distant lands. The existing historical remains in the erstwhile port area like Balighat Dinamardinga, Olandazsahi, Barbati, Kilapokhari etc. do confirm that Baleswar was very active in the 17th and 18th centuries as a port. It proved to be an alluring station in the import and export of articles to different parts of India and abroad. The commercial relationship of Baleswar extended to the ports of Dacca, Chittagong, Narasapur, Vizagpatnam, Masulipatnam, Pulicat and Madras on the eastern coast and to Surat and Calicut on the western coast. Its inter-provincial commercial relationship extended chiefly to Bengal, Bihar, Gujrat and Kerala and foreign trade extended to the ports of Persia, Maldiva, Burma, Indonesia, China, Ceylon and England.

The presence of European Companies changed the nature of agrarian and industrial production here. The local merchants and European companies traded in cotton yarn, taffetas, raw silk, sannoes, peeper, ginger, rice,

sugar, salt, saltpetre, butter, iron etc. for export and broad cloth, quick silver, cowries, copper, brime stone, lead, tobacco, opium, vermilion, elephants, arecanut, cinnamon, conch shells etc. for import merchants from Tinasaram brought elephants in ships to Baleswar. In March 1680, Khem Chand brought a good number of elephants for trade at Baleswar. The king of Siam in 1762 carried a number of elephants in ships leading to the factory at Baleswar. Also like Pipli, the port town of Baleswar emerged as a centre of slave trade as a result of Protuguese activities.

The port of Baleswar was overburdened with several ships such as Advice, Dalming Unity, Bhegabat Prasad, Moora Heady, Krushna Prasad, Macmoaddy, Hope Well, Binito, Grey Hound, Happy Entrances, Johanna, Falcon, the Murry Rosa Marine, Princes, Hare, Henry William, Johana, Bengal Merchant, Defence, Rochestar, Sampson, Royel James, Welfare, Keshari, Merchant, Guruprasad, Diamond etc.

Baleswar port also emerged as a leading ship and boat building center in the whole of eastern India. The plentiful availability of materials like steel, iron, fuel, cloth and timber in Orissa helped growth of this industry. It seems that provincial Mughal authorities opened up the ship and boat building center here keeping in view the prosperity of internal and seaborne trade.

The seaborne commerce of Baleswar Port and her prosperity could not thrive in the 18th century. Factors both natural and political contributed to its decline in the first half of the 18th cenutry. The silting up of the sea from the original port area took away the advantage of Baleswar port.

Other small ports such as Chhanua, Saratha, Lychanpur, Chudamani were the trade-centers of salt and rice exclusively. Sartha was situated at the junction of two rivers. Chudamani was an open road shed in the mouth of Gummre river, a branch of Kansabansa. Lychanpur was at a little distance from river Kansabansa. Small ships and long vessels were found in these ports. But subsequently due to salt monopoly by the Britishers, the salt business came to a close resulting in the decline of these ports.

The maritime activities of Orissa have now become a thing of the past. The glorious maritime contact that once gave Baleswar the status of a colonial master is lost to oblivion. The Boita Bandana of Kartik Purnima and the Taapoi festival observed annually carries the reminiscences of this glorious past.

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Rise of the Oriya Novel : 1897-1930

Jitendra Narayan Patnaik

The trajectory of Oriya fiction from its formal beginning in 1888 to its movement through the first three decades of the twentieth century not only marked its development as a legitimate art form, but also brought into existence a number of significant landmarks that opened up wider perspectives and possibilities. Among the successors of the first two major novelists, Umesh Chandra Sarkar and Ram Shankar Ray, are Fakir Mohan Senapati, Chintamani Mohanty, Aparna Panda, Mrutyunjay Rath, Ram Chandra Acharya, Baishnaba Charan Das, Upendra Kishore Das, Gopal Ballav Das, Nanda Kishore Bal and Kuntala Kumari Sabat. With the emergence of these novelists, the focus shifts from the genre of historical romance to a deep concern with contemporary social problems such as those of economic exploitation, widowhood and widow marriage, political corruption, caste hierarchy, women's education, colonial power and agrarian tenancy system. All of them were ideologically engaged with a sense of social reform as well as resistance to evils, injustice and moral depravity.

The four novels of Fakir Mohan Senapati, written between 1897 and 1915, reflect the social and political conditions of Orissa during the eighteenth and nineteenth centuries. Lachama,

published in 1901, is a historical romance dealing with the anarchical condition of Orissa in the wake of Maratha invasions during the eighteenth century. Lachama follows the tradition of the first two Oriya novels, Padmamali and Bibasini whose plots were drawn from history. Most of the characters in Lachama are non-Oriyas and its narrative is governed by action relating to war and military diplomacy. Narrated in the epic manner of historical romance, its declamatory style, exotic atmosphere and heroic mode sets it apart from the colloquial style, local atmosphere and mock-heroic mode of the other three novels of Fakir Mohan. The urge to write this historical romance might have sprung from Fakir Mohan's preoccupation with history which had earlier led him to write two volumes of school textbooks on Indian history.

Fakir Mohan's first novel, Chha Mana Atha Guntha written during 1897-1899 and published in book form in 1902, is considered as a revolutionary creation in Oriya language for two important reasons. Firstly, with the emergence of this novel, the language of fiction changed from that of the pundits to that of the common man. His deft handling of the spoken language of the Oriya rustics redeemed Oriya prose style from

the burden of Sanskrit and Bengali influences and provided a distinct literary identity to the native Oriya language and vocabulary. Secondly, this novel, as well as the two novels Mamu published in 1913 and Prayaschita published in 1915, was a pioneering attempt at producing fiction of social realism in Oriya language. Set in the colonial Orissan society during the early decades of the nineteenth century, Chha Mana Atha Guntha is the story of an evil landlord, Ramachandra Mangaraj, who exploits poor peasants and appropriates their property. Exploitation of the poor villagers by the zamindars and the rise of a new class of exploiters among petty officials and clerks under the British government were the two dominant traits of the Oriya society during nineteenth century and early decades of the twentieth century. In the three novels of social realism, Fakir Mohan not only exhibits a sharp sense of observation of minute details relating to the social reality of rural Orissa but also makes incisive comments on the corrupting forces that threatened the erosion of moral values in society. While Chha Mana Atha Guntha depicts the suffering and agony of the common man caused by the tyranny of the zamindars, Mamu deals with the new class of exploiters in urban Orissa whose greed for wealth leads them to ruthless villainy and cruel action. This novel is a sharp indictment of the educated youth who grew up in the colonial ambience of power and wealth and ignored all traditional moral values in the selfish interest of grabbing wealth. In Prayaschita, Fakir Mohan presents the tragic effects of caste system on the family of a college-educated youth who defies tradition to marry a girl of his choice. Within the formal features of aesthetic form, Fakir Mohan's novels are a faithful representation of the historical,

social and political realities of colonial Orissa during the nineteenth century and the early decades of the twentieth century. The three novels of social realism cover the socio-political conditions of Orissa from 1800 to 1920, which was a crucial period in terms of the dominance of feudal power in rural Orissa as well as in terms of Orissa's intense search for a distinct Oriya identity in the face of the overpowering influence of Bengali and Western cultures. Fakir Mohan's novels, in addition to being great works of art, are also authentic social documents that reflect the ethos of a crucial period of Orissa's socio-cultural history.

Among the contemporaries of Fakir Mohan, four novelists deserve special mention: Aparna Panda, Mrutyunjay Rath, Ram Chandra Acharya and Brajabandhu Mishra. Aparna Panda's Kalavati and Brajabandhu Mishra's Basanta Malati were both published in 1902, the year in which Chha Mana Atha Guntha came out in the book form. Kalavati, which came out from Paralakhemidi, is written in the fictional form of a travelogue. The heroine, a beautiful and educated young woman, describes her adventures and experiences as she travels through Orissa, Madhya Pradesh, Madras and Bengal. The novel speaks of the spread of Brahma Samaj in Calcutta, the corruption of the priests and monks in Nadia and Brundaban, the influence of western lifestyle in the city of Bombay and the conflict between the traditionalists and modernists in Orissa. Brajabandhu Mishra's Basanta Malati, which came out from Bamanda, depicts the conflict between a poor but highly educated young man and a wealthy and highly egoistic young woman whose conjugal life is seriously affected by ego clashes. Through a story of union, separation and

reunion, the novelist delineates the psychological state of a young woman in separation from her husband and examines the significance of marriage as a social institution in traditional Indian society. Ram Chandra Acharya wrote about seven novels during 1924-1936. Interestingly all his novels are historical romances based on the historical events in Rajasthan, Maharashtra and Orissa. Mrutyunjay Rath's novel, *Adbhuta Parinama*, published in 1915, centres round a young Hindu who gets converted to Christianity to marry a Christian girl. Though he becomes a father of two children, he realizes that his conversion was a blunder. Out of frustration, he tries to kill his wife and children by hurling them into the sea. The children die, the wife escapes death and the husband is sentenced to solitary confinement in a distant island. The novel is a fictional account of the actual acts of conversion that was engineered by the Christian missionaries in the early decades of the twentieth century.

Bhima Bhuyan of Gopal Ballav Das was published in 1908 and is considered to be the first Oriya novel dealing with a tribal community of Orissa. The plot of the novel took shape while Gopal Ballav worked as guardian to the king of Keonjhar who was a minor. During this period, he came in contact with the Bhuyan tribe of the area and studied their habits, rituals and customs. Based on his personal experience, Gopal Ballav constructed a plot revolving round Bhima whose love for a girl of his community remains unfulfilled and the love between him and a princess remains unrequited. This plot of unrealized love is contextualized in the ambience of tribal life and society as well as a royal court and family. The novel also reflects the tendency of the petty royal officials to exploit ordinary people. Bhima Bhuyan

thus amalgamates the elements of historical romance and fiction of social realism. Though Gopal Ballav authored only one novel in his lifetime, it remains a significant achievement and an integral part of Orissa's literary history.

Quite a few Oriya novelists emerged in the nineteen-twenties and wrote through nineteen-thirties. Chintamani Mohanty's *Jugala Matha*, published in 1920, speaks of the moral depravity of a spiritual person, the head of a math, whose indulgence in wine and women leads to his expulsion from the math. He eventually settles down at Puri and expiates his sins. Mohanty's *Tanka Gacha*, published in 1923, deals with the problem of migrant labour, the predicament of the poor Oriyas who run away to the tea gardens of Assam in search of work and livelihood. *Bula Fakira*, published in 1924, is the story of a prodigal youth who runs away to Calcutta and through trials and tribulations reforms himself and leads a happy life. This novel also depicts the state of misery and humiliation of young widows in traditional Oriya families. A common trait in all the novels of Chintamani Mohanty is his deep concern for the rural poor. His novels clearly reflect his missionary zeal for social reform and rural development.

The two novelists who may be treated as the most worthy successors of Fakir Mohan are Upendra Kishore Das whose novel *Malajanha*, published in 1922, is indisputably a modern classic, and Baishnab Charan Das whose novel *Manemane*, published in 1927, deals with an unconventional theme of love between a married woman and a young man. The plot of *Malajanha* centres round a young girl Sati who is forced into marriage with an ugly old man living with a

concubine. The marriage eventually ends in tragic separation and Sati finds shelter with Nathanana, her childhood friend. The relationship between Sati and Nathanana is one of strong emotional bond though neither has ever spoken out to the other about the intensity of love. Sati, unable to bear the scandal concerning her and Nathanana, finally commits suicide by jumping into the river. This poignant love story is narrated in the context of life in rural Orissa infested by superstitions, narrow caste prejudices and acute poverty. Women were like slaves with no mind and choice of their own and child marriages were widely prevalent. The agony and suffering of Sati may be seen as essentially related to the social evils that afflicted contemporary rural Orissa. Baishnab Charan's *Manemane* also narrates a touching story of love culminating in the death of the heroine. Like Sati of *Malajanha*, Kanaka, the heroine of *Manemane*, is forced by family pressures to forsake her lover Nilu and marry someone else. Nilu however remains steadfast in his love for Kanaka until the end though he relents to the wish of Kanaka who in her dying moment wants to see Nilu getting married to Rangi, her husband's sister. This plot is contextualized against the typical rural life of Orissa with all its landscape, customs, rituals and social relations. In terms of theme, both Upendra Kishore and Baishnav Charan continued the tradition of social realism pioneered by Fakir Mohan, while in terms of narrative strategies they lacked Fakir Mohan's penchant for humour and satire.

Kanakalata by Nanda Kishore Bal, published in 1925, is another significant novel of social realism. A substantial part of this novel was actually published in serialized form in *Utkal Sahitya* in 1913 and was widely acclaimed by

the readers. The plot of the novel centres round two pairs of lovers: Dhananjay and Kanakalata whose love-at-first-sight culminates in marriage after overcoming the hurdle of dowry dispute, and Rajendra and a child-widow named Uma whose passion and love for each other remain unfulfilled with Uma's tragic death and Rajendra renouncing the world and turning into a sanyasi. The plot is in fact an indictment of the evils of dowry system in rural aristocratic society and the predicament of the child-widows who were condemned into a life of anguish and suffering. The novelist's zeal for social reforms is clearly evident in the language and plot-structure of the novel. The novel also portrays a realistic image of the typical landscape and lifestyle of rural Orissa in the early decades of the twentieth century.

Kuntala Kumari Sabat, whose six novels were published between 1923 and 1933, is the first significant woman novelist in Oriya language. Her first novel, *Bhranti*, published in 1923, is based on the relationship between Sephalika and Anangamohan who undergo a series of misunderstandings and psychological conflicts and eventually get united in marriage. This love story is set against life in the rural setting in all its aspects of aristocracy, small villainies and conservative attitudes. Kuntala Kumari's *Naa Tundi*, published in 1925, reflects the contemporary political milieu shaped by a sense of nationalist sentiment as well as a zeal for social reform, particularly in the field of female literacy. *Ratani*, the heroine of the novel, is portrayed at the beginning of the narrative as tomboyish, quarrelsome and a dare devil. *Krushna Chandra*, the local zamindar who is interested in social reforms, is attracted by the uncommon nature of *Ratani* and takes her as his second wife. After marriage, *Ratani's* nature undergoes sudden

transformation and with the help of her husband she not only learns to read and write, but also gets into the mission of making the women of her village literate and educated. She shares the joys and sorrows of the poor rustics and helps them in their distress. Krushna Chandra, the rich zamindar, lives a simple life, spins on the charkha, wears home-spun clothes, establishes a spinning centre in the village, destroys the liquor shops and spreads the message of prohibition. The plot of Kuntala Kumari's novel Raghunath, published in 1928, is also based on contemporary social problems such as superstitions, dowry system and the pathetic predicament of widows in a rural conservative society. The plot of this novel centres round unfulfilled love between Sita, daughter of a rich person, and Raghunath, a poor orphan. Sita's father forces her to marry Dibakar Mishra, a dissolute zamindar, by exhorting money from him. Sita lives a life of misery and soon becomes a widow. Raghunath, by a strange turn of destiny, becomes a rich person and proposes Sita to marry him. Sita rejects the proposal and Raghunath dedicates himself to the service of the poor and the helpless. There is a pronounced element of didacticism and social criticism in all the novels of Kuntala Kumari. She wrote at a time when there was an upsurge of nationalist sentiment, and Gandhian ideals inspired the whole nation to fight against alien rule and to resist social evils. Kuntala Kumari's novels clearly reflect this socio-political milieu.

Apart from the novelists mentioned above, there were quite a few novelists in the nineteen-twenties whose novels were published in serialized

form in such journals as Utkala Sahitya, Mukura and Sahakara. Among these novels are Rana Pratap Singh by Dayanidhi Mishra, Ajati by Nabin Kumar Sharma and Naibedya by Jonathan Mohanty. A very interesting literary event in the nineteen-twenties is the publication of Basanti, a novel written by twelve writers and serialized in Utkala Sahitya between 1924 and 1926. All these writers were members of a literary society called Sabuja Sahitya Samiti and they included Kalindi Charan Panigrahi who turned out to be a significant modern Oriya poet, short story writer and novelist, and Annada Shankar Ray, who later established himself as a famous Bengali litterateur. Basanti was conceived on the pattern of the Bengali novel Baroyari which was also authored by twelve writers. The plot of the novel centres round Basanti and Debabrata, a couple committed to the mission of social reforms. Basanti came out in the book form in 1931, the year in which Kalindi Charan Panigrahi's novel Matira Manisha was published. With the publication of these two novels, Oriya fiction formally moved into the modernist era characterized by a new sense of freedom and an urban outlook that challenged traditional values and patterns of life.

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Sarala Mahabharat : Tales of Subversion (Part-II)

Dr. Satyabrata Das

Though Vyasa's original Sanskrit Mahabharata remains the *raison de'tre* of Sarala's Mahabharata in Oriya, it is not at all a translation of the former, nor even written in the shadow of it. As it were, Sarala's epic stands out as an independent, autonomous piece of art on its own merit. Both structurally and otherwise Sarala's Oriya Mahabharata is a creative work of art with no less brilliance and endurance than the original Sanskrit one.

As we observe, Sarala not only makes it a point to break away from the Sanskrit original both in structure and spirit, he unequivocally gives out a voice of protest against the monopoly, orthodoxy and authoritarianism of the Brahmins down the ages. Mr. Gadadhar Mishra gives a comparative account of the composition of Mahabharata in different regional languages. While Sarala wrote in late 15th century, Kasiram, Rama Saraswati, Ramanujan and Mukteswar wrote Mahabharata in Bengali, Assamese, Malayalam and Marathi respectively during 16th century and Gokulnath wrote the epic in Hindi full two centuries after, during 18th century (110)(1).

A closer examination of Sarala's epic would expose marks of subversion which, in all

probability, Sarala did consciously, deliberately. The theme of subversion in Sarala Mahabharata occurs at many levels and surfaces in many ways. However, they can be categorised into five broad patterns : Religious, Socio-Cultural, Ethical-intellectual-philosophical, Structural and linguistic.

Since more than three millennia passed between Vyasa and Sarala, it is quite obvious that several streams of faith and religious creed appeared and vanished in that aeonian stretch of time. Though the differences and deviations are galore between the two an attempt may be taken to pin down to certain points to exhibit the core originality of an anonymous regional talent like Sarala in his determined effort to subvert the original Sanskrit Mahabharata of the iconic Vyasa.

We may approach this theme of subversion from the religious corridor. First of all, Sarala visualizes Lord Krisna and Sri Jagannath as one and inseparable. Though Krisna as a character is invariably caught in a cross-fire of controversy (for his indulgence in debauchery, diplomacy and double-dealings on one hand, while on the other, His absoluteness as the Purna Brahman) Sarala, visualizes Him as the purest and the absolute Brahman. Hence, Sarala sees no distinction

between Sri Krisna and Sri Jagannath. They are one and indivisible. Sarala's Krisna, as Boulton, the Western Indologist and a distinguished Sarala scholar, looks at him, is drawn more in the light of Jayadeva's Gita Govinda with the accompanying sensuality and licentiousness. Thus the Krisna of Sarala is a world apart from the intellectual-philosopher-omniscient Krisna of Vyasa (23).

Next, coming to the episode of Viswarupa Darshan, the great cosmic form that Sri Krisna shows to Duryodhan (when the latter repeatedly offends him and attempts to arrest him in the Sanskrit Original Version) is changed in Sarala's. In Sarala Mahabharata Sri Krisna, when intimidated by Duryodhan, takes various forms like fish, tortoise, boar and finally Narasimha (half-lion, half-man). Analysts are of the opinion that Sarala, by showing this, proves the supreme forgiveness and compassion of the Lord who, in spite of being slighted and provoked, still had his blessings for the sinner and the arch-enemy Duryodhan.

Again, in the same sequence, the Nabagunjara form (the head of a hen, the hunch of a bull, the neck of a pea-cock, the tail of a snake, the waist of a lion; and each foot is like that of a horse, tiger, elephant and man) that Sri Krisna takes on is a unique and original display of Sarala's genius and creativity.

The next landmark along the religious corridor is the character of Draupadi. While Vyasa addresses only to the physical and external beauty/glamour of Draupadi; Sarala takes a holistic view of this magnificent specimen of human character. Sarala, being truly the voice of the people of his time, culture and society, has made all possible

efforts to shape and mould Draupadi's character in the best of the ethical, religious and psychological perspective. That explains the originality in Sarala's incorporation of the SATI AMBA episode in his script (Mansingh, Mayadhar. Matira Mahakabi Sarala Das,46)

Yet another critic Dr. K.C. Panigrahi, in highlighting the religious distinctions of Sarala Mahabharata, observes :

In his Mahabharata Sarala Dasa deviates from the Sanskrit original and represents Draupadi as the unseen destructive force working for the death and destruction of all the Kauravas, all the Pandavas excluding Yudhisthira and the Yadavas including Sri Krisna.

(Sarala Dasa, Sahitya Akademi, 1975, 37)

This theory of Sarala Dasa which finds a distinct motion in the Karna Parva of the Mahabharata is altogether novel- thus comments Dr. Panigrahi insightfully (37).

Further, contrasting the original Sanskrit Mahabharata with Sarala's Prof. Chittaranjan Das observes that none of the Gods and Goddesses in Sarala Mahabharata has his /her spiritual clout as in Vyasa's. Though Sarala has shown no disrespect to them, he makes them descend on the local, Oriya platform and perform their role. (A Glimpse into Oriya Literature,101-2). As a matter-of-fact Sarala made the sanctified Gods appear life-like as men in flesh and blood that became a rich cultural heritage of Orissa. Thus we find Lord Jagannath being depicted with such informality and intimacy by scores of poets and writers over centuries. Boulton too asserts ;

..... and here we come to the crux of the matter. Sarala Dasa behaves towards Krisna in the

traditional manner of Oriyas towards Jagannath; he mocks and debunks him. In doing so, he breaks away from the path of both Vyasa and Jayadeva. Vyasa had exalted Krishna as the divine lover, but Sarala Dasa refuses to regard Krishna/Jagannath as anything but equal, whose faults are to be mocked and censured (23).

This is amazing! Nothing could be more subversive than this !

As regards the socio-cultural perspective in Sarala we observe innumerable digressions from the original. As a case in point, Sarala introduces a comic relief in which the old king Yudhisthira gets into a marital bond with the young daughter of a goldsmith Hari Sahu from Amaravati. Though he comes under heavy fire for incorporating such a ludicrous episode in the high serious epic Sarala, as Dr. Mansingh rightly upholds, was just and fair. Such interludes unequivocally send their powerful signals against the rigid and rampant caste-system prevalent in our society. The marriage between the highest warrior class with a Vaisya commoner was just unthinkable at that point of time. Boulton too, in powerful terms, highlights how Sarala undermines the "Caste System" and attacks the Hindu-Aryan Gods(23). Boulton points out how Sarala consistently undermines "the exalted status of aristocrats and saints" (22).

On the ethical -intellectual - philosophical front Sarala makes no pretension of putting up any rivalry with Vyasa's original. The entire stretch of the profound Bhagavad Gita (with Lord Krishna as the Philosopher King, the guide and preceptor of not Arjun alone but of the entire mankind) is so strikingly absent in Sarala Mahabharata. As Prof. B. Mohanty says The Santi Parva, the

quintessence of Sanskrit Mahabharata, doesn't figure in Sarala Mahabharata. Dr. Mayadhar Mansingh insightfully observes on the very difference in the focus between the original Sanskrit and the Oriya Mahabharata of Sarala. In his analysis he takes the Santi parva as a case in point. While in the Sanskrit original, as Dr. Mansingh highlights, the entire canto rebounds with sermons, dos and donts, intellectual and philosophical fire-works; in the Sarala Mahabharata they appear rather irrelevant, out of context. Sarala has brought the sermonizings to the minimum. It was, as Dr. Mansingh believes, because Sarala wrote the Mahabharata for the illiterate peasantry, not for the elites of society as Vyasa did.

Yet another critic, Madan Mohan, in his comparative evaluation of Vyasa and Sarala (on their respective Mahabharata in Sanskrit and Oriya) highlights the Lakha Vindha episode and the following sequence, the marriage of Draupadi with the five Pandava brothers. In Vyasa's original, as Madan Mohan points out, the marriage of Draupadi with the five Pandavas is solemnized in a five day session with Vyasa himself presiding over the rituals. Whereas Sarala prefers not to do that. Sarala, if studied in-depth, consciously avoids the abruptness and the lack of respect for human dignity underlying Vyasa's schemata. Sarala, instead, speaks in the voice of Vyasa himself to Draupadi (who resents the very proposal to marry five brothers). Vyasa, in his counseling, reveals to Draupadi in a monologue the account how Indra takes birth as mortal in the "Panchu Pandavas" and Draupadi herself is none but Indra's eternal companion Sachi. The two are one and inseparable. Though the Pandavas are five externally, they are spiritually

and essentially one. That convinces Draupadi and then only she agrees to marry. Thus Sarala's approach is out and out humane and democratic; while that of Vyasa it is basically authoritative and atrocious. In the adi-parva of Vyasa's Mahabharata we find Karna being abruptly rather harshly turned down by Draupadi as Sutaputra the moment he appears on stage to try his luck with the Shiva Dhanush. Such a scene is scrupulously avoided by Sarala.

The entire arrangement of the archery competition that was so elaborately and unrealistically conceived by Vyasa is made fairly realistic and credible by Sarala.

Sarala Mahabharata, as a matter of fact, deviates from the structure of the Sanskrit Mahabharata in a major way. He has nearly changed the general schemata of the original. He has deliberately skipped the entire stretch of Srimad Bhagavad Gita by making a reference to that in two verses only. The long, profound, intellectual-ethical discourse of the grand old man Bhishma addressed to Yudhisthira in the Santi Parva is glaringly absent in Sarala Mahabharata. On the other hand, the Madhya Parva is a new addition of Sarala that runs into fifteen thousand verses. Similarly, both in the Sabha Parva and the Vana Parva Sarala makes wide departures from the original. Besides, Sarala has considered proper not to accommodate as many as forty-four narratives, mostly dialectical in nature, found in the Santi Parva and the Anusasika Parva of Vyasas' original.

On the linguistic front, it is quite obvious that Sarala has taken all care to make his syntax as rustic and colloquial as possible. In fact he has made the best use of the Oriya lingua franca in composing a narrative of the stature of an epic without losing any of its grace and grandeur. Thus Vyasas' Sanskrit, the language of Gods and of the elites, is hammered out to the language of the peasants and the common folk of Orissa with such strong dose of imagination that maintains the flavour and the dignity of the original.

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Evolution of Temple Architecture in Orissa

Dibishada Brajasundar Garnayak

Etymologically the term temple is derived from the Latin word '*Tempulum*' which in its original sense means a square or a rectangular place marked out by the augur for the purpose of worship. In its primitive sense this word corresponds to a place marked off as sacred to a God, in which the house of God may be erected. The shrine or the abode of the God has different nomenclatures. In ancient Sastras or literature the temple is referred as *Devagriha*, *Devalay*, *Devakula* etc. In the *Vastusastra* the North Indian temples are known as *Prasada* while as the Southern Indian temples are known as *Vimana*, *Harmya* and occasionally as *Prasada*. The term *mandira* for the first time occurs in Banabhatta's *Kadambari*, a text of 7th century AD.

The temple architecture in India had its humble beginning right from the Mauryan period i.e 3rd century BC as evident from the archaeological excavation at Sanchi (Madhy Pradesh, temple no.40 and 18) and Bairat (Rajasthan). However, it gained momentum in the Gupta period. The temple no.17 at Sanchi, temple no.1 at Udayagiri near Vidisa were the earliest example of temple architecture, which blossomed during the Gupta period.

The Indian *Silpasastras* recognize three main types of temples known as the *Nagara*, *Dravida* and *Vesara*. *Nagara* temple belongs to the country from the Himalay to the Vindhya, *Vesara* from the Vindhya to the Krishna and the *Dravida* from the Krishna to the Cape Camorin. However, an inscription of 1235 AD in the mukhamandapa of the Amritesvara temple at Holal in Bellary district of Karnatak speaks of a fourth style i.e Kalinga in addition to the above three. *Pratistha Lakshyanasara Samuchaya* by Vaivochana a silpa text of 11th-12th century AD mentions Kalinga temples as of rekha order. Indigenous texts like *Bhubana Pradip*, *Silpa Prakasa*, *Silpa Ratnakosha* etc. deals exclusively with the Kalingan style of architecture. These silpa text of Orissa mentions three types of temples, *rekhadeul*, *pidhadeul* and *khakaradeul*. The rekha and pidha form two component parts of one architectural scheme, the former is represented by a sanctum with its curvilinear spire and the latter by the frontal porch having pyramidal roof of receding tiers known as *pidhas*. In the earlier phase, there was no *pidha deul* and the *Jagamohan* or the frontal hall had a by a flat roof. In course of time to meet the growing need of the rituals two more structures were added

namely *natamandapa* (dancing hall) and *bhogamandapa* (offering hall) during the Ganga period (12th century). All the four components are arranged in one axial alignment and often the temple complex is enclosed by prakara (boundary) wall. The khakara order is noted by a semi-cylindrical vaulted that looks like a inverted boat (boita) or a pumpkin gourd roof. The temples of this order are usually meant for sakti worship.

Orissan temples constituted a sub-style of the Nagara style of north Indian temples. The building activity of this sub-regional style continued for nearly one thousand years from the 6th- 7th century to the 15th-16th century AD in unbroken continuity. Bhubaneswar, the ancient Ekamra Khetra served as the experimental ground of these temple building activities without being distracted by the change of ruling dynasties or their cult affiliation. As a result the temples are identified with the land Kalinga rather than the royal families such as Pallava art, Rastrakuta art, Chandella art, Chalukyan art etc. It is worth while to mention here that temple building activities, of another tradition, was prevalent in ancient Orissa as attested by epigraphic evidences. Hathigumpha inscription (line-17) of the 1st century BC, described Kharavela as the "repairer of all shrines of Gods" (*sava-devayatana-sankara-karako*). From the village of Asanpat in Keonjhar district, a stone inscription records the construction of a temple by Maharaja Satrubhanja, who is ascribed to 3rd-4th century AD.

The Orissan temple is remarkable for its plan and elevation. The interior ground plan of the temple is square as a rule. Rarely, however the temple has star shaped layout (as noticed at

Boudh) or circular plan (Ranipur-Jhariial & Hirapur) to conform to the nature of rituals. Generally speaking the Orissan temples are distinguished by vertical offset projections called *rathas* (on plan) or *pagas* (on elevation). Depending on the number *pagas*, the temples are classified into *triratha*, *pancharatha*, *saptaratha* and *navaratha*. The earlier temples are characterized by *triratha* plan.

On elevation, the temples show interesting features. Both sanctum and the porch can be divided into three parts along the vertical plane viz. *bada*, *gandi* and *mastaka*. From bottom to top or final, each part of the temple has a special name corresponding to that of limbs of human body standing on a *pista* or the platform on which the temple stands (which is not a compulsory element in early temples and is generally found in later temples). The *bada* or the vertical wall portion of the temple is divisible into *pabhaga*, *jangha* and *baranda*. This type of three fold division of Triangabada is found in early temples and in later temples, *bada* has five elements namely *pabhaga* (or the foot portion is composed of five mouldings called *khura*, *kumbha*, *patta*, *kani* and *basanta*), *tala jangha* (lower thigh), *bandhana* (mouldings joining the two thigh), *upara jangha* (upper thigh) and *baranda* (the waist portion). The *baranda*, forming the top most part of the *bada* has a set of *mouldings*, starting with one moulding in the early phase progressing into seven and ten *mouldings* in the later and last phases of the classical tradition.

The *gandi* (or the torso) of *deul* has a curvilinear super structure; in the temples of early phase *gandi* is devoid of any sculptural embellishment. Fully developed temples have

ornamental bhumis, chaity motifs and angasikharas (miniature shrines). The *gandi* of *jagamohana* is of pyramidal shape (designed with receding tiers in a sequence so as to reduce the top most tier to the half of the lower tier). The *mastaka* (the head) consisted of the *beki* (neck) or recessed cylindrical portion above *gandi*, *amalaka* (ribbed circular stone, resembling the amla fruit), *khapuri* (skull), *kalasa* (auspicious pot) and the *ayudha* (weapon of the enshrined deity) in succession. The *mastaka* of the *pidha deul* has the same features except for the addition of *ghanta* (bell).

The horizontal cross-section of the *bada* and *gandi* in both the *rekha* and the *pidha deul* are square, while the *mastaka* is circular. The ground plan of *khakhara deul* is oblong. The temples are remarkable for abundance of sculptures. Stella Kramarisch has aptly remarked, "Architecture in Orissa is but sculpture on a gigantic scale". The sculptural repertory consists of human figures, *kanyas*, erotic motifs, cult icons, animal figures including mythical and composite figures, decorative designs like variety of scrolls and architectural motifs like *pidha mundi*, *khakhara mundi*, *vajra mundi* etc.

The temple style was in full vigour in the wake of vast religious and cultural resurgence that took place when the Sailodbhavas ruled from the middle of 6th century A.D till the first quarter of 8th century A.D. The temple building activities gained momentum under the Bhaumakaras (736-950 A.D) and the Somavamsis (950-1112 A.D) and reached the climax during the Ganga period (1112-1435 A.D). The activities however continued even under the Suryavamsi-Gajapatis (1435-1542 A.D) though on a very small and impoverished scale.

To a keen observer, the temples of Orissa portray a picture of organic evolution from Parasuramesvara to Lingaraja through Muktesvara and Vaital, which ultimately culminated in Puri and the gigantic Konark. The evolution can be seen through four distinctive phases of temple building; viz. i) Formative phase, ii) Transitional phase, iii) Mature phase, iv) Phase of decadence.

Formative Phase:

The period in between the 6th century AD to the first half of the 9th century AD is considered as the formative phase that synchronized with the rule of the Sailodbhavas and early phase of Bhauma-karas. The representative temples are Lakshmaneswar, Bharateswar, Satruganeswar, Swarnajaleswar, Parsurameswar, Mohini and Kapalini. Of these, Parsurameswar assigned to the 7th cent. is the best preserved specimen of the early phase. Its *triratha vimana* has a *rekha sikhara*. The *jagamohana* is a rectangular pillared hall with a terraced roof sloping in two tiers. The *graha* architrave has eight *grahas* with the absence of Ketu. Temples of this period are *triratha* on plan with a central *graha* offset and two corner projections. On elevation Bada is *triangle*, with three divisions i.e. *Pabhaga*, *jangha*, and *baranda*. *Pabhaga* or the foot portion consists of three mouldings of *khura*, *kumbha* and *pata*. *Gandi* became a gradual curvature and started from of the *sikhara* unburdened by any *angasikhara*. The temples are of small and moderate height. *Baranda* is terminating in a recessed *kanthi*. Absence of *dopicha simha* in the *beki*, below the *amlaka*, absence of *Dikpalas*, absence of *baby* on the lap of *Matrikas*. The sculptures are in low relief,

flattish and entrusted on the surface of the stone. Beginning with disproportioned and rigid limbs assumed flexibility and proportion during the Bhauma-kara period.

Transitional Phase:

The temple activities entered into a transitional period in the second half of the 9th century that continued up to the first quarter of the 11th century under the rule of the later Bhauma-karas and the first half of the rule of the Somavamsis (Kesharis). The temples of this period are Vaital (khakhra deula), Sisireswar, and Markandeswar in Bhubaneswar and Bringesvara at Bajarkot (Dist. Angul), Swapaneswar at Kualo (Dist. Dhenkanal), Siva temple at Badgaon, Simhanatha temple in an island of Mahanadi river at Gopinathpur (Dist. Cuttack), twin Hari-Hara temple at Gandharadi Dist. Baud, Varahi temple (*khakhara deul*) at Churasi (Dist. Cuttack). The notable feature of the period was the introduction of rampant erotic sculptures due to the influence of Vajrayana philosophy. Mukteswar at Bhubaneswar which is considered as the gem of Orissan architecture was the last monument of the period. The notable features of the period were the introduction of erotic sculptures. Mukhasala or the jagamohana became an inseparable element with a perfect and natural joining of the vimana with jagamohana without the crude overlapping of the sanctum decoration as seen in the formative phase. Both the structures were conceived as a uniform complex in the original plan. Towards the end, the plan and elevation of the *mukhasala* transformed from a rectangular flat roof to a square hall with a pyramidal superstructure. Pabhaga had four mouldings. Introduction of *naga-nagi* pilasters and *chaitya*

medallions as decorative motifs, introduction of the vyala and *jagrata* motifs in the *jangha* portion, baranda recess is carved with base-reliefs, kanika is divided into five horizontal bhumis (storey) by *bhumiamlas*. *Parsvadevata* images are carved of separate single stone unlike the earlier tradition of blocks of stones that constitute a part of the temple wall. Sculptural treatment of the interior part (particularly the ceiling) which is characteristic feature of the Somavamsis period and not noticed in the earlier or the later temples, *Matrikas* carry babies on their lap. Finally *Ketu* was added to the list of planets, which became a permanent feature of the *graha* panel in the temples of the subsequent period.

Mature Phase:

The building activity attended its maturity towards the middle of the 11th century (Somavamsis) that continued till the 13th century (Gangas). The temple architecture developed further under the Somavamsis, which can be traced through a series of temples like Rajarani, Brahmeswar, and finally the Lingaraj that presents the Orissan temple style at its best. The building tradition was continued by the Gangas who are credited with the construction of the great Jagannath temple at Puri, Chateswar temple at Kakudia (Dist. Cuttack), Sobhaneswar temple at Niali dist Cuttack, Drakshaprajapati at Banapur, few shrines at Bhubaneswar, the magnificent Konark temple (Dist. Puri), marks the grand climax of the Orissan style. The features are quite discernible as given in the discussion. *Bada* is divided into five segments, i.e. *pabhaga*, *talajangha*, *bandana*, *upara jangha* and *baranda*. Pabhaga has five mouldings (*khura*, *kumbha*, *pata*, *kani* and *basanta*). *Gandi* is

embellished with angasikharas (miniature temples) of diminishing size as they rise upwards. The pagas projections are fully developed and prominently articulated. *Amlaka sila* is supported by deulacharinis or seated divinities and dopicha simhas being set in the beki. Introduction of structural motifs like *pidhamundi*, *khakharamundi* and *vajramundi* in the *jangha* portion. The sculptures of this period are excellent in their plasticity and modeling include non iconic female figures, these are more proportionate, elongated and in alto-relievo. In the iconography of the cult deities new elements were introduced with profusion female figures, Ketu in a serpent body and Hanuman head in latter phase, Projected lion (udyota simha) on the Rahapaga. Pista and platform became a regular feature. *Natamandap* and *Bhogamandap* were added to the *Jagamohan*. Introduction of Subsidiary shrines in front of the *parsvadevata* niche. Introduced of *vahanastambha* in front of the temple. Appearance of the female counter parts of the *dikpalas* on the *uparjangha*.

Phase of decadence :

After the Gangas during the 14th to 16th century AD under the Suryavamsi-Gajapatis, the temple building activities entered into a phase of decadence. The great period of Orissan temple architecture came to halt with the crowning achievement at Konark. The Suryavamsis, who succeeded the Gangas remained preoccupied with political problems and could not give much time for temple building. Of the few temples, the temples at Kapilesvara at Bhubaneswar belonged

to this period. Towards the later part of the 15th century AD impoverishment was noticed. *Pidha deul* became the choice for both *vimana* and the *jagamohana*. The building materials are mostly laterite. The walls of the temple are devoid of sculptural embellishment and decoration. Such insolvency was also noticed in the decoration of *doorjambes*, which also largely remained plain.

Thus the temple building activities that started during the 6th century AD reached its climax during the Ganga Period started declining during the Gajapati. The most important factors for the declines of temple building activities are, lack of royal patronage and decline of Hindu power. Whatever it may be till recent Orissa has possessed the rich Temple heritage, which are the imprints of our ancestor, still existing with the ravage of time. These are the pride of Orissan people in particular and that of Indian in general. These are most compact and Homogenous architectural group in India.

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Lycanthropy in Kandhmal

Anuja Mohan Pradhan

Lycanthropy, the word has been derived from a Greek word *lykantropos*: *lykos* (wolf) + *anthropos* (man) which means the ability or power of a human being to undergo transformation into an animal. Lycanthropy is often confused with transmigration, but the essential feature of the were-animals is that it is the alternative form or the double of all living being while soul-animal is the vehicle. In Orissa the same is called "Palta vidya or kaya palat". Though change of form into many animals is not unknown in Kandhmal, it is popularly called "Kdadi mliba" in Kui language.

Though the origin of the word is credited to the Greek, the belief of lycanthropy is widely prevalent across the world. In North and Central America, and to some extent in West Africa, Australia and other parts of the world, every male acquires at puberty a tutelary spirit. In some tribes of Indians the youth kills the animal of which he dreams in his initiation fast; its claw, skin or feathers are put into a little bag and become his "medicine" and must be carefully retained, for a "medicine" once lost can never be replaced. In West Africa this relation is said to be entered into by means of the blood bond and it is so close that the death of the animal causes the man to die and vice versa. Elsewhere the possession of a tutelary spirit in

animal form is the privilege of the magician. In Alaska the candidate for magical powers has to leave the abodes of men; the chief of the gods sends an Otter to meet him, which he kills by saying "O" four times; he then cuts out its tongue and thereby secures the powers which he seeks. The Malayas believe that the office of Pawang (priest) is only hereditary if the soul of the dead priest, in the form of a tiger, passes into the body of his son. While the familiar is often regarded as the alternative form of the magician, the nagual or bush-soul is commonly regarded as wholly distinct from the human being. Transitional beliefs, however, are found, especially in Africa, in which the power of transformation is attributed to the whole of the population of certain areas. In other cases, the change is supposed to be made for the purposes of evil magic and human victims are not prohibited. A further link is supplied by the Zulu belief that the magician's familiar is really a transformed human being; when he finds a dead body on which he can work his spells without fear of discovery, the wizard breathes a sort of life into it, which enables it to move and speak, it being thought that some dead wizard has taken possession of it. He then burns a hole in the head and through the aperture extracts the tongue.

Further spells have the effect of changing the revived body into the form of some animal, hyena, tiger etc. This creature then becomes the wizard's servant and obeys him in all things; its chief use is, however, to inflict sickness and death upon persons who are disliked by its master.

Like *meria*, the practice of lycanthropy is very difficult to locate in Kandhmal in the current times. Many people disbelieve the same as impossibility. The tales or erstwhile incidents, however, demonstrate similar characteristics as found in other countries. It is presumed that this art is God given to some people at birth. Such persons do not show any specific symptoms. But it is said that the skin of a were-man is so dry that looks like smeared with ash. The person practising this art lives double life. The animal soul stays in the forehead of the person. At the time of releasing the animal form the person lies on the floor and his body shivers. Then a very small animal is released from the forehead and it rolls around. In no time it grows in shape and gets a full body. Some are said to possess more than one bodies of the same animal or two different animals. The most popular animal forms are tiger, large water snakes (*grahi*), *crait*, *sambhar*, etc. The human body with full conscience stays at home while the animal form moving outside. The human at home is fully aware of any problem the animal part faces, it even tells the place where it is moving or trapped. It has similar feelings such as revenge, fear, love, care etc. as in an individual. This relation is said to be so close that the death of the animal causes the man to die if the person practises for a single form. It is also heard that some were-man are engaged to inflict danger on hire by others. Both man and women are said to practise lycanthropy.

The peculiar aspects of lycanthropy is sure to create curiosity. Many older people of Kandhmal tell such stories. Recently, this author had come across such experiences narrated by a retired school teacher named Shri B C Pradhan. Few of those experiences are reproduced here for the readers.

I

It was an incident of his school times long back in 1950-51. He was a student of class V in the Catholic Mission School at Mondasoru. It is to mention that the same school has been instrumental in providing education in that area and has produced students like Dr. Radhakant Nayak, IAS and Shri John Nayak, IPS and numerous other dignitaries of the district.

The school is located on the western edge of the deep gorge, popularly known as Grangu-Kuti. It was having thick forest around it in those days and tigers often roamed nearby. To catch the tigers there was a trench trap where the bait was to be fixed and the door shut as the prey enters the inner chamber. On that day, there was a feast in the school and goat meat was provisioned. The students put the intestines of the goat on the trap. On the following day evening, students heard the door shut and found that a tiger was trapped in. Students informed Father Francis, a Spanish missionary in charge of the school. By that time Fr. Francis was old and was called 'Budha Balada', i.e. old bullock by the students. He didn't know English and even used to punish students for speaking English. Fr. Francis told the students to wait till the morning as he had very poor vision. About 2:00 a.m. at night a young man came to hostel. He was from a far away village called "Bada banga". He requested the

missionary to free the tiger, even offered Rs.300/- as she was his mother moving as a tiger. But the European missionary didn't believe his version and shot the tiger. Eventually the women, the mother of the young man died in her village.

II

It is an incident of the year 1982. Shri Pradhan was posted as a teacher at the primary school, Lasery. Near Rodiguma, there is a village named Judabali situated about 7 km from Kotgarh in Kandhamal district. In that village, witchcraft was rampant. In a family the elder brother could transform himself into a Sambhar i.e. a wild deer. The wife of his younger brother also knew the same and could transform into a Sambhar as well. While in the form of Sambhar, both copulated. Their actual relationship forbids proximity and sexual union is a social crime or sin. This secret action was noticed by witch doctors in the village. Ultimately, there was a meeting in the village and both of them accepted the charge. The elder brother of her husband was fined with a pig.

III

In the year 1984, Shri Pradhan was posted as a teacher at a primary school, Chanchedi, about 15 km from Raikia Block Hqrs in the same district. Some people warned him to be careful of a wild boar if he ever comes across. That was not from Jungle rather it was a transformed one by the village milkman who herds the cattle. Shri Pradhan, as he told, gathered courage to go to that milkman's house. He was aged, modest and greeted the school teacher politely. Shri Pradhan asked if he really knows the craft of transformation into a boar, and pleaded him to spare him. The

milkman said "no my son, why shall I harm? You are a teacher of my village". Shri Pradhan then asked for a favour. "Please let me have a look, when you are in the form of a boar from a distance." The milkman said "OK, tomorrow morning when you are coming to school, you can see me in the open fields at the village outskirts". Next day morning by 9 am when shri Pradhan was coming to school he saw the wild boar with perforated tusks and up to his thigh's height at the specified place.

IV

This author also has heard from a retired forester another startling incident. At Daringbadi, during his stay there in late sixties one rural magician who had come to treat one of his labourer showed his tiger form in broad day light.

What is revealed from the above stories is lycanthropy also prevailed in Kandhmal till recent past. Like the spirit call of Tibetan Lamas even to take crucial political decisions the lycanthropy in Kandhamal calls for more scientific investigation to bring into light that how the illiterate people could do miracles where science has to rethink on its powers.

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Legal Process Outsourcing and the State of Orissa

*Anirudha Choudhury
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Metaphors don't often speak for themselves as they are heavily bribed. The metaphor in this instant can be called the phenomenon, which has truly lighted up the Outsourcing sector in India. There is a new star in the BPO industry firmament. It is called LPO or simply "Legal process outsourcing". One of the biggest driving forces for the success of the top notch law schools in India, it is absorbing many of the 15,000 law graduates that India churns out each year. It has been estimated by many leading industrial and financial bodies including NASSCOM that about 700 Indian lawyers are currently reaping the LPO boom benefit, debating and documenting the glittering fallouts of globalization in matters pertaining to a host of cases and areas like family disputes, patents entertainment, pharma. Intellectual Property Rights, Corporate merger and acquisition.

Legal outsourcing to India started out as a low-end work, which mostly included transcription. But that has definitely become a thing of the past. Now, everything from patent application drafting, legal research, pre-litigation documentation, advising clients, analysing drafted documents, writing software licensing agreements to drafting distribution agreement is being outsourced to India and the reasons are not too far to seek. One of the most primary reasons is

that legal services are quite expensive overseas. For instance, a senior US lawyer, with five to six years in the business, charges an astounding \$650 an hour. A junior charges \$350. Indian law graduates will be happy to make Rs.35,000 a month, which would be definitely a great going for beginners in any profession.

Not just abroad, there are new and generous takers for law graduates in the country. Even NGOs and the National Human Rights Commission absorb a substantial number of students. Moreover, with the service sector opening up by 2010, according to a WTO agreement, opportunities for international and our own law students would definitely increase. Taking the cue, IITs have also joined the law band-and-bandwagon. In a first, IIT Kharagpur, the oldest of the seven IITs in the country, has started offering a course in law. The law course has become a part of a programme, which the institute has taken up to diversify into areas beyond engineering and other traditional branches.

High-end legal services are likely to lead the next wave of offshoring with about 35,000 lawyers. Jobs are more likely to move from US to countries like India in the next five years. In its latest study, NASSCOM says that MNC's, international law firms, publishing and legal research firms are now increasingly sourcing

specialized legal services from India. By the year 2015, the number could reach a whopping 79,000. There are reports that billing by Indian lawyers to US firms for in-house work alone ranged from \$5 million to \$15 million in 2004, and the figures are only expected to go up. The global spending on legal services has been estimated to be at least \$250 billion and NASSCOM has further stated the fact that the future has been looking only brighter.

With software development and testing as well as research and development services having reached the tipping point in the Indian IT-enabled services space, the next big wave in outsourcing is coming from the legal services. In the legal services, the wage disparity between paralegals and assistants as well as attorneys in the US and India has been driving more and more companies to shift their legal functions offshore, heralding an era of what is called legal process outsourcing (LPO). India with its crop of 15,000 lawyers every year has the relevant skill set to handle even hi-value legal tasks like legal research, drafting contracts and making determination regarding responsiveness of the document and privilege. The trend that was started by GE Plastics by shifting its legal work to India by employing lawyers at the Gurgaon unit to write and review contracts, is finally taking off. Today GE itself employs 30 lawyers at its Indian subsidiary who support all critical legal services for the company worldwide.

With the legal services industry in the US estimated to be \$166 billion, employs approximately one million trained attorneys and 500,000 support personnel such as paralegals and legal assistant, the opportunity for offshoring to India abound. According to the PWC report on Knowledge Process Outsourcing, the segment also included domestic LPO companies which offered outsourcing services to domestic law firms

in the capacity of intermediaries. For instance, US-based Atlas Legal Research is believed to have started sourcing their manpower requirement from offshore destinations like India. Lawyers in the Indian offices of Bangalore and Chennai allow Atlas to price its services at approximately 60 per cent lower than the competition. They charge \$60 per hour as compared to \$350 per hour at the US scale. Others like Allen & Overy, Baker & McKenzie, Hammonds Direct, Law wave and AMLT Synergies fall in a similar league.

It is a well recognized fact that LPO and BPO sector is the fastest emerging service sectors in India. Certain states like Maharashtra, Karnataka, Delhi and Tamil Nadu, who had very early gauged the importance of this are reaping rich benefits out of this. In terms of revenue to the state, people and besides giving employment with huge emulations, the benefits have been many and simply astonishing.

The State of Orissa has a major opportunity in all this. With the process of Industrialization catching up in Orissa and major MNC's and global players like Arcelor- Mittal, POSCO, Reliance and co. setting up their plants in the state, it is only natural that they would require competitive lawyers. But in absence of this, they would have to look to avenues outside the state. Therefore, the time is ripe for the state to take the cue and jump in the bandwagon and cash on this scope. Otherwise it would be a case of cutting a sorry figure, once too many for the state of Orissa.

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Land Suitability Classification for Different Crops

Dr. Antaryami Mishra

Each plant species requires definite soil and site conditions for its optimum growth. Although some plants may be found to grow under different soils and extreme agro-ecological conditions, yet not all plants can grow on the same soil and under the same environment. The conspicuous absence of *Pinus* species in inter-tropical and of eucalyptus in the temperate (cold) regions are examples. Since the availability of both water and plant nutrients is largely controlled by the physico-chemical and micro environment of soils, the success and/or failure of any plant species, in a particular area, is largely determined by these factors. The deep rooted forest or orchard plantations respond differently to soil depth and soil texture (Mishra and Sahu, 1991) than the shallow-rooted arable crops such as rice, wheat, green gram, black gram, pigeon-pea, groundnut etc.

Several soil-site studies for different plant species have been reported in the literature. These illustrate how soil depth, (sub) soil texture, salinity and drainage conditions are related to soil-site quality. The objective of various soil-site evaluation studies have been to predict and classify land for plant growth (Sehgal, 1996). Observations on growth inhibiting factors for certain species and

tolerance of others to extremely adverse conditions have been evaluated by many scientists.

Suitability Criteria

Most of the plant species need well drained, moderately fine to medium texture soils, free of salinity and having optimum physical environment. Soil resource maps based on several parameters, can aid in predicting the behaviour and suitability of soils for growing field crops, horticultural crops, forest species and other plantation crops once the suitability criteria is established. Within limits, it may also find application in transfer of technology to other areas with comparable soil-site characteristics.

Several systems of land evaluation have been proposed for use in different regions, the important being that of Storie (1954) and Ricquier et al (1970).

The FAO land suitability classification system has four different categories: Orders, Classes, Subclasses and Units.

There are two orders (S and N) which reflect the kind of suitability (S for suitable and N for unsuitable land).

Order "S" -Suitable land

Land on which sustained use for the defined purpose in the defined manner is expected to yield benefits that will justify required recurrent inputs without unacceptable risk to land resources.

Order "N"-Unsuitable land

Land having characteristics which appear to preclude its sustained use for the defined purpose in the defined manner or which would create production, upkeep and/or conservation problems requiring a level of recurrent inputs unacceptable at the time of interpretation.

Land Suitability Classes:

The framework at its origin permits complete freedom in determining the number of classes within each order. However, it has been recommended to use only 3 classes within order S and 2 classes within order N. The class will be indicated by an Arabic number in sequence of decreasing suitability within the order and therefore reflects degrees of suitability within the orders.

Examples:

S1 : Suitable

S2 : Moderately suitable

S3 : Marginally suitable

N1 : Actually unsuitable but potentially suitable

N2 : Actually and potentially unsuitable

No firm criteria are given for defining the classes; this permits complete freedom in choice of the criteria in order to elaborate the degrees of suitability within the orders. For each specific case a specific method is to be suggested. Appraisal can be done according to an evaluation of land limitations.

Land Suitability Subclasses:

The sub classes reflect kinds of limitations or main kinds of improvement measures required within classes. They are indicated in the symbol using lower case letters.

c : Climatic conditions

t : Topographic limitations

w : Wetness limitations

n : Salinity(and/or alkalinity) limitations

f : Soil fertility limitations not readily to be corrected

s : Physical soil limitations(influencing soil/water relationship and management).

Land suitability units:

This grouping is used to identify land development units having minor differences in management requirements. This can indicate the relative importance of land development works. It is indicated by Arabic numerals, enclosed in parenthesis, following the subclass symbol.

Example of total unit :

The whole unit is indicated by a symbol; for example : S2w(2). Here "S" represents Order (Suitable); the number 2 after the letter S represents Class 2(moderately suitable); "w" represents Subclass w(wetness limitation); and (2)represents Unit 2.

Sys and Verheye(1975) proposed the following capability index(C_i) based on nine parameters for crop production in the arid and semi-arid regions.

$$C_i = A.B.C.D.E.F.G.H.I.$$

Where,

A = rating for soil texture(Taken as 100 for best texture, say loam)

B = rating for calcium carbonate(Taken as fraction of 1(one)

C = rating for gypsum (as above)

D = rating for salinity (as above)

E = rating for sodium saturation (as above)

F = rating for drainage (as above)

G = rating for soil depth (as above)

H = rating for epipedon and weathering stage (as above)

I = rating for profile development (as above) .

For example a soil has loam texture, has 5 to 10 percent calcium carbonate, 2.5 percent of gypsum, 4.8(dS/m) of salinity content, low in sodium saturation, is well drained, very deep, has well defined epipedon and matured soil horizons. The Capability index(Ci) of the soil as per the scheme will work out to be

$$100 \times 0.8 \times 0.8 \times 0.9 \times 1.0 \times 1.0 \times 1.0 \times 1.0 \times 1.0 = 57.6$$

The Capability index of the above soil is 57.6. It comes under the Ci range of 45 to 60; so the soil has moderate limitation for economic production of crops.

Sys(1976) proposed the following scheme for evaluating the degree of limitation ranging from 0(suggesting no limitation and having Ci of 80 or more) to 4(suggesting very severe limitation with Ci of 30 or less.

No (0) : The characteristics(quality) are optimal for plant growth(Ci 80 or more).

Limitation Slight (1) : The characteristics are nearly optimal for the land utilization type and

Limitation affect productivity for not more than 20 per cent with regard to optimal Yield (Ci 60 to 80).

Moderate (3) : The characteristics have moderate influence on crop yield decline; Limitation however, benefits can still be made and the yield remain economical. (Ci 45 to 60).

Severe (4) : Such limitations will not only decrease the yields below the Limitation profitable level, but may inhibit the use of the soil for the considered land utilization(Ci less than 30).

The limitation approach has been successfully used to provide a qualitative land evaluation based on general characteristics which are made available after a quality soil survey and general study of other soil resources in the area.

The soil-site parameters considered for the purpose of evaluating land for agriculture, forestry and for plantation crops and for defining suitability classes are :

Soil-Site Characteristics Related Land Quality

Climate - Available moisture

Topography and Landscape(t) - Resistance to erosion

Wetness(w) conditions

- Available moisture
- Drainage
- Flooding

Physical conditions(s) of soil

- Texture
- Water availability
- Gravels/Stoniness
- Availability of foot-hold for

(Surface and subsoil) root development

- Depth
- Availability of foot-hold for plant growth
- Calcium carbonate
- Nutrient availability
- Gypsum
- Source of nutrient sulphur

Soil fertility(f) (Not readily correctable):

- Organic matter
- Cation Exchange Capacity (CEC)
- Base Saturation
- Nutrient availability

Salinity and Alkalinity(n):

- Salinity
- Groundwater depth and its quality
- Alkalinity/Sodicity

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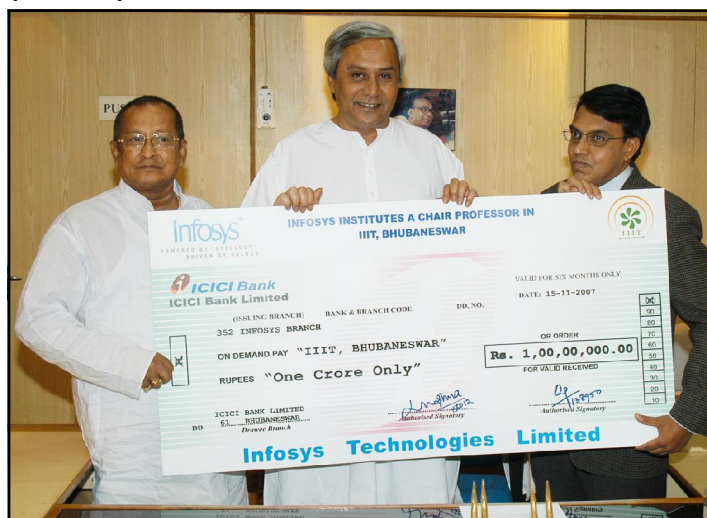
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Hon'ble Chief Minister Shri Naveen Patnaik receiving a cheque Rs.one crore from Infosys Technologies Limited at Orissa Legislative Assembly on 21.11.2007. Shri Surjya Narayan Patro, Minister, Energy, Information Technology & Culture is also present.

Economics of Mining in Orissa

Dr L.N.Dash

Minerals, like any other commodity, are of great economic significance and have occupied a distinctive place amongst all the economic resources. They have to be produced like any other economic commodity before they can be utilised for satisfying human needs. Minerals are indispensable not only for the well-being of man, but also for his survival. They are essential in the production of goods and services of various kinds. Minerals and mineral industries have important macro links with the economy. Mining activity generates employment opportunities; minerals contribute to world production and have sizable world trade. In some countries, mostly developing, the foreign exchange earnings from the export of minerals are substantially boosting the domestic economy. Minerals give rise to the freight earned by railways and to the earnings on export and import cargo handled by ports. They are important sources of tax revenue and contribute to national income. In view of the significance minerals hold, the paper makes an attempt to assess the contribution minerals make to the state's economy in the field of production, export, revenue, employment etc.

At the beginning of the First Five-year Plan, the occurrences of iron ore, limestone, dolomite, manganese, graphite, coal and chromite were known but to a moderate extent. Several decades

of exploration have brought to light large resources of these minerals including a few more like bauxite, thermal grade coal, rare earth minerals, nickel ore and magnetite. Orissa now occupies an important position in the mineral map of India. The state has 16.92 per cent of the total mineral reserves of the country. It has minerals of various kinds. The mineral reserves in Orissa with respect to chromite, nickel ore, graphite, bauxite, iron ore, manganese and coal are 97.37 per cent, 95.10 per cent, 76.67 per cent, 49.74 per cent, 33.91 per cent, 28.56 per cent and 27.59 per cent respectively of the total deposit of such minerals in India (Table- 2). Notwithstanding this, the value of minerals produced in Orissa is only 10.21 per cent of the total value of minerals produced in India in 2004-05. (Table-1) The total reserve of iron ore in the state is 4177 million tonnes, which comes to 33.91 per cent of the total iron ore reserve in the country. It is mined in four districts of the state. They are Keonjhar (79.88 per cent), Sundergarh (16.95 per cent), Jajpur (2.39 per cent) and Mayurbhanj (0.78 per cent). Similarly, the total reserve of chromite ore and manganese in Orissa are 111 and 116 million tonnes respectively. In percentage terms they come to 97.37 per cent and 28.56 per cent of the total reserve in the country. While chromite is abundantly available in Jajpur, Dhenkanal and

Table -1
Value of Mineral Production of Selected States (Rs in crore)

Sl.no.	Name of the state	1999-00	2000-01	2001-02	2002-03	2003-04	2004-05
1	Andhra Pradesh	3329.92 (6.93)	3686.71 (6.88)	3793.71 (6.98)	4238.75 (7.30)	4231.38 (6.77)	3857.82 (6.40)
2	Assam	2711.69 (5.65)	3323.02 (6.20)	3239.62 (5.96)	3031.67 (5.22)	3032.77 (4.85)	2818.18 (4.68)
3	Bihar	15.98 (0.03)	15.56 (0.03)	14.86 (0.03)	10.04 (0.02)	5.32 (0.01)	5.56 (0.01)
4	Gujarat	3784.14 (7.88)	4448.41 (8.30)	4577.87 (8.42)	5017.90 (8.64)	5044.62 (8.07)	4732.07 (7.86)
5	Karnataka	812.53 (1.69)	836.47 (1.96)	936.01 (1.72)	1005.94 (1.73)	1280.21 (2.05)	1606.77 (2.67)
6	Maharashtra	2076.37 (4.32)	2240.92 (4.18)	2401.57 (4.42)	2516.41 (4.33)	2819.61 (4.51)	2672.91 (4.44)
7	Madhya Pradesh	6401.04 (13.33)	3009.44 (5.61)	3116.91 (5.73)	3794.21 (6.53)	3926.66 (6.28)	3699.58 (6.14)
8	Orissa	2605.05 (5.42)	2776.15 (5.18)	2910.47 (5.35)	3694.16 (6.36)	3877.75 (6.20)	6148.61 (10.21)
9	Rajasthan	1059.36 (2.21)	1120.44 (2.09)	1107.22 (2.04)	1199.88 (2.07)	1146.31 (1.83)	1123.05 (1.86)
10	Tamilnadu	1198.77 (2.50)	1596.15 (2.98)	1652.22 (3.04)	1806.05 (3.11)	2012.73 (3.22)	1909.01 (3.17)
11	Uttar Pradesh	1020.63 (2.13)	1218.75 (2.27)	1194.70 (2.20)	1536.41 (2.65)	1191.41 (1.91)	1160.84 (1.93)
12	West Bengal	1838.25 (3.83)	2130.61 (3.97)	2267.40 (4.17)	2357.67 (4.06)	2407.90 (3.85)	2406.66 (4.00)

Note: Figures in bracket indicate percent share to all India value.

Source: Govt. of Orissa, Economic Survey, 2005-06.

Keonjhar districts, manganese deposits are available in Sundergarh and Keonjhar districts. Only one district Jajpur has 97.43 per cent of the total chromite stock in Orissa while the other two districts Keonjhar and Dhenkanal have only 2.57

per cent. Dolomite is available in large quantities in Sundergarh district. Koraput is the major bauxite-producing district in Orissa, which produces 98.82 per cent of the State's total bauxite production. Only 1.22 per cent of the total bauxite

Table - 2
Mineral Reserves in Orissa and India, 2004-05
(in million tonne)

Sl no	Name of the mineral/ore	Reserve in Orissa	Reserve in India	Percentage to all India reserve	Rank in India
1	Iron ore	4177	12,317.3	33.91	5
2	Chromite	111	114	97.37	1
3	Coal	60983.3	221005.9	27.59	4
4	Bauxite	1530	3076	49.74	1
5	Limestone	2224	169941	1.31	-
6	Dolomite	882	7349	12.0	1
7	Fireclay	177	706	25.07	2
8	China clay	314	2353	13.34	-
9	Nickel ore	174.5	183.5	95.10	-
10	Magnetite	2.5	12.0	20.83	-
11	Manganese	116	406.2	28.56	1
12	Mineral sand	86	266	32.33	-
13	Graphite	4.6	6.0	76.67	1
14	Pyrophyllite	4.8	22.6	21.24	1
15	Lead ore	1.9	176	1.08	-
16	Talc-soap stone	1.1	327	0.34	-

Source: Govt. of Orissa, Economic Survey, 2005-06 (Bhubaneswar: Govt. of Orissa, 2006).

is mined in Sundergarh district. Coal is mined to the tune of 66.69 per cent in Angul district followed by 33.13 per cent in Jharsuguda, Sundergarh and Sambalpur districts taken together. Manganese is found only in two districts - Keonjhar (83.96 per cent) and Sundergarh (16.04 per cent). Exploitation of hitherto unexplored or under-explored minerals has been of topical concern in the state. This includes gold, diamond and gemstones. Gold has been collected over the centuries in river banks of Mahanadi,

Subarnarekha, Indravati, Brahmani and their tributaries where as diamond has been found in Mahanadi sands in their upper reaches.

The rate of exploitation to its total reserve is less than one per cent in case of all minerals except in iron ore and chromite. The low rate of exploitation is attributed to lack of infrastructure facilities, low rate of investment and labour problems. The production of iron ore and chromite production increased substantially during 2004-05 over the previous year by 32.01 and

Table - 3
District-wise Exploitation and Value of Major Minerals in Orissa during 2004-05
(in lakh tonnes) (Rs crore)

Sl No.	District	Chromite		Coal		Iron ore		Manganeseore		Bauxite	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	Angul	-	-	445.61	1213.39	-	-	-	-	-	-
2	Dhenkanal	0.12	1.77	-	-	-	-	-	-	-	-
3	Jajpur	33.35	489.24	-	-	11.01	30.83	-	-	-	-
4	Jharsuguda	-	-	201.41	968.78	-	-	-	-	-	-
5	Keonjhar	0.76	11.19	-	-	367.93	1548.68	9.00	150.66	-	-
6	Mayurbhanj	-	-	-	-	3.62	15.25	-	-	-	-
7	Sundergarh	-	-	15.85	76.24	78.07	328.67	1.72	27.95	0.60	1.60
8	Koraput	-	-	-	-	-	-	-	-	48.52	129.06
9	Sambalpur	-	-	5.27	25.35	-	-	-	-	-	-
Total		34.23	502.20	668.14	2283.76	460.63	1923.43	10.72	178.61	49.12	130.66

Source: Govt. of Orissa, Economic Survey, 2005-06 (Bhubaneswar : Govt. of Orissa, 2006)

18.75 per cent respectively. The production of manganese ore also increased by 54.29 per cent. The total production of minerals and ores in Orissa during 2004-05 was 1270.48 lakh tonnes whose total value comes to Rs. 6148.61 crore as against the total production of 1080 lakh tonnes worth Rs.3877.75 crore in 2003-04. It indicates an increase of 17.64 per cent in terms of quantity and 58.56 per cent in value terms. The production of coal and metallic minerals has increased by 11 per cent and 27.78 per cent respectively while there has been an increase of 8.18 per cent in case of non-metallic minerals during the same period.

Mining royalty is an important source of revenue for the state. The overall trend in revenue receipts from the mining sector during 2000-01 to 2004-05 shows that it has increased from Rs.360.41 crore in 2000-01 to Rs.670.51 crore

in 2004-05 (Table-5). The revenue receipt, therefore, has nearly doubled during a period of five years. It has formed a lion's share of the total non-tax revenue of the state. It was 52.58 per cent of the total non-tax revenue in 2000-01, which increased to 65.17 per cent in 2004-05. It is indicative of the growing importance of the mining sector in the economy of Orissa.

A country rich in mineral resources has got an enviable status. If it can effectively harness export-oriented mineral resources, it can dictate to the international market and earn huge amount of foreign exchange. Minerals are sometimes consumed by the producers by themselves in their own industries. Most of the minerals mined, however, are transported to various mineral-based industries of the state and the country. However, small quantities of chromite, illuminite (heavy minerals from beach sands), iron ore, etc

are also exported. Table-4 presents the export of minerals and ores from Orissa during the period from 2000-01 to 2004-05. During 2004-05, 171.67 lakh tonnes of minerals were exported as against 36.63 lakh tonnes in 2000-01, nearly an increase of five-fold. The export of iron ore and chromite has increased over the years. The state earns substantial amounts from the export of minerals. In 2004-05, a total of Rs.1265.54 crore was earned from the export of mineral products. It constituted 23.50 per cent of the total exports

and Keonjhar districts utilize chromite, manganese, iron and silica rich minerals and export part of their production.

The level of employment is an important measure of economic development of a nation. The efficiency of a particular sector in an economy is assessed, besides other things, on the basis of its employment generating capacity. The mineral sector in Orissa provides employment to a large number of skilled and unskilled people. Table-6 shows the direct employment opportunities in

Table - 4
Export of Minerals / ores from Orissa.
(in lakh tonnes) (Rs in crores)

Sl No.	Items	2000 - 01		2001 - 02		2002 - 03		2003 - 04		2004 - 05	
		Qty	Value	Qty	Value	Qty	Value	Qty	Value	Qty	Value
1	Chromite	7.08	185.85	10.27	255.71	11.82	267.40	11.68	264.34	11.79	n.a.
2	Iron ore	28.25	222.88	35.46	272.33	46.55	374.28	61.93	852.43	156.75	n.a.
3	Limestone	1.30	45.09	0.31	10.75	0.30	0.52	2.74	56.08	3.07	n.a.
4	Zincon	-	-	-	-	-	-	0.02	3.60	-	-
5	Manganese	-	-	-	-	-	-	0.03	10.08	0.06	n.a.
Total		36.63	453.82	46.04	538.79	58.67	642.20	76.40	1186.53	171.67	n.a.

Source: Govt. of Orissa, Economic Survey, 2005-06 (Bhubaneswar: Govt. of Orissa, 2006).

from Orissa. The minerals like chrome/chrome concentrate are exported to countries like China, Russia, Japan and Netherlands and enriched the state exchequer by an amount of Rs.858.16 crore in 2004-05. Similarly, iron ore and manganese ore worth Rs.329.65 crore were exported to China in the same year. Other minerals like illuminate worth Rs.77.73 crore were exported to Norway, Austria, the USA and South Korea. There are a few granite cutting and polishing units in Balasore and Koraput districts which export tiles and monuments to Asian and middle-east countries. The alloy plants in Balasore, Koraput

different mineral activities. The highest number of people is employed in the coal and iron ore mining activities. The total number of people employed in the mining sector in Orissa was 52,937 in 2001-02. Thereafter, it has shown a declining trend up to 2003-04. The employment situation in this sector improved in 2004-05 and the figure reached 49,794 with an increase of 13.83 per cent over its previous year because of expansion of mining activities in the state. The overall trend during the period of five years has shown a declining trend showing a decrease of 5.94 per cent in 2004-05 as compared to 2000-01. This

Table - 5

Revenue Receipt from Mining Sector and Total Non-tax Revenue of Orissa. (Rs in crore)

Year	Revenue receipts		Total	Total own non-tax revenue of the state	Percentage of col.4 to col.5
	Cess on mining royalties	Mining royalties and other revenue from minerals			
2000 - 01	0.09	360.32	360.41	685.5	52.58
2001 - 02	0.07	376.38	376.45	691.8	54.42
2002 - 03	-	443.53	443.53	961.2	46.14
2003 - 04	0.01	550.76	550.77	1094.5	50.32
2004 - 05	-	670.51	670.51	1028.9	65.17

Source: Govt. of Orissa, Economic Survey, 2005-06 (Bhubaneswar: Govt. of Orissa, 2006).

situation is attributed partly to induction of higher technology and automation of mineral activities in Orissa.

Minerals are the base of all industries. Even some agricultural-based products like paper and textile require minerals or mineral-based chemicals at various stages of production. The machines required for their production are made essentially out of iron ore and other minerals. Thus, minerals and mineral deposits are at the foundation of industrial development in any country. The rich reserves of minerals in Orissa have led to establishment of several mineral-based industries in Orissa. Some of them are the Rourkela Steel Plant, aluminum plants by INDAL and National Aluminum Company (NALCO), charge chrome plants at Brahmanipal, Bhadrak and Choudwar, Ferro Alloys Corporation and Indian Charge Chrome Limited. At Theruvalli in Rayagada, Indian Metals and Ferro Alloys (IMFA) has set up a plant for the production of charge chrome/ferro chrome. The other important mineral-based industries established include two sponge iron plants in Keonjhar district, a refractory in

Dhenkanal district and mineral sands separation and synthetic rutile plants of Indian Rare Earth Ltd at Chatrapur of Ganjam district. Several cement plants have been set up in the state and four coal-based thermal power plants have been set up at Talcher, Kaniha, Ib Valleys at Banharpalli. In addition to all these, NALCO, RSP, ICCL, INDAL etc have set up their own coal-based power plants.

With globalisation and liberalization of the Indian economy, the rich stock of mineral resources of Orissa has attracted the attention of several multinational companies for large-scale mining and setting up mineral-based industries in the state. Because of the reserve of 4177 million tonne of high grade iron ore in Orissa, the large multinational corporations are showing interest to establish steel plants in Orissa. The government of Orissa has already signed 43 MOUs with a total investment of Rs.1,37,156 crore to produce about 58 MTPA steel. Of them, the world reputed South Korean company has signed memorandum of understanding (MOU) to set up a steel plant in the state with a total investment of \$ 12 billion

Table - 6
Number of Workers Directly Employed in Major Mineral Activities

Sl No.	Mineral ore/ district	2000-01	2001-02	2002-03	2003-04	2004-05
1	Bauxite (Koraput,Sundergarh)	603	458	724	792	732
2	Chromite (Dhenkanal, Jajpur, Keonjhar)	6743	5624	4786	4424	6607
3	Coal (Angul,Jharsuguda)	19583	17069	17657	17318	17624
4	Dolomite and limestone (Baragarh, Bolangir, Nuapada)	4868	3302	3245	3516	1626
5	Iron ore (Jajpur, Keonjhar)	13255	11983	10523	11418	19592
6	Manganese ore (Keonjhar, Sundergarh, Rayagada)	4081	3437	3660	3892	1513
7	Others	3804	3262	3572	2383	2100
Total		52,937	45,135	44,167	43,743	49,794

Source: Govt. of Orissa, Economic Survey, 2005-06 (Bhubaneswar: Govt. of Orissa, 2006)

(about Rs. 51,000 crore) to produce about 12 MTPA steel. The other companies which have evinced interest and signed MOUs with the state government are the TATA iron and steel company and the Sterlite iron and steel company which have planned to invest about Rs.27,902 crore. The Neelachal Ispat Nigam Limited (NINL) has started production of pig iron since 2002. The associated project of Konark Met Coke Ltd (KMCL) has set up at Duburi Industrial Complex to produce coke. Similarly, Orissa has a rich bauxite deposit of 1530 million tonne which is 49.74 per cent of the country's deposit. The state government is going to lease out the bauxite mines to various companies to establish Alumina/ Aluminium industries in the state. The agreement signed between the Orissa Mining Corporation (OMC) and the Utkal Alumina Ltd to set up a Alumina project in Rayagada district is

noteworthy. Projects by Vedanta Alimina Limited, Tisco, Jindal, Visa and Essar are also lined up. Besides, a Rs.48, 000 crore thermal power plant by Reliance Energy is also on the cards. Geological investigations in the districts of Bolangir and Subarnpur have revealed the presence of 24 garnet occurrence cases over an area of 154 square kms. The state government's 'Gemstone Policy of 1998' is a milestone for the exploration of gemstone resource in Orissa.

CONCLUSION

1. All the Acts so far formulated are by the Government of India. They have taken into consideration the limit of mining area, period of mining, conservation and systematic development of minerals, working condition and safety of workers, accident and wages in mines and so on. The Mines and Minerals Regulation and

Development (MMRD) Act has some provision for rehabilitation of flora and other vegetation destroyed due to mining. Notwithstanding all these, keeping in view the interest of the state and the people in the mining areas, a policy on mining of its own should be developed by the Government of Orissa.

2. In Orissa, the degree of mechanization in mining has not reached a saturation or near-saturation level as in the developed countries. The mining method is mostly traditional and labour intensive. This adversely affects the environment. Modern technology, therefore, need to be used in the mining activities of Orissa.

3. Ecological factor should be a criterion in deciding the exploration of minerals in an area. Under certain circumstances mining should be banned in favour of preservation of environment. A certain percentage of the cost of the project should be earmarked for reclamation of soil.

4. The mineral reserves of the state are mostly located in forest areas. Thus the concern of environmentalists is not unfounded. Following the forest conservation Act of 1980 and other environmental protection Acts of mid-eighties, provisions have been made in the mineral concession laws to grant mining leases in forest land only after locating equivalent non-forest land for fresh afforestation and paying for the same so that the extent of greenery is not diminished. Implementation of the laws in this regard takes a

back-seat for several reasons. Sufficient steps should, therefore, be taken to remove the barriers in the implementation of the laws. Then only we can be able to reap the benefits of mineral resources in Orissa.

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Odissi Vocal : A Unique Classical School

Kirtan Narayan Parhi

The traditional school of music presently known as Odissi was referred by Bharat Muni, under an independent heading, *Udramägadhi Pravåtti in Nåtÿashåstra*. Unless one surveys the history, delves deep into the original texts and has aesthetic relish of odissi recitals, one may not be in a position to appreciate the uniqueness and wholesomeness of Odissi vocal as an independent system in the domain of Indian classical music.

Odissi vocal, like Odissi dance, is not only very ancient but has uniqueness of its own and has all the characteristic features for being reckoned as a classical form, which has its own tradition, texts, ragas, tålas, gita and classical style of recital.

Firstly - Traditions : The art and architecture on the caves built in the 1st century B.C. i.e. during the reign of Kharavela and thereafter in the temples of Konark, Puri, Bhubaneswar and many other places speak volumes about the rich and long legacy of Odissi music and dance. In Råni cave of Udayagiri at Bhubaneswar, there are statues of ladies dancing to the tune of instruments. In Tatuå cave of Khandagiri, there is a statue of one male playing on veenå (harp). The playing of veenå signifies the classical nature of Odissi of the time. Kharavela has engraved the following lines in Råni caves of Udayagiri in bramhi script and pali language -

"Line 5. *Gaåd hava-veda-budho dapa-nata-géta-vådita-saådaåsanåhi usava-samaja-kåråpanåhi cha Kéåapayati nagariå (.) Tathå chavuthe vase vijådharåd hivåsaå ahata-puva Kaliåga - puvaråja n(i)v(e) s(i) t(i) - Vitadha-makuåa sabiladhite cha nikhita-chhata"*

i.e. (Again, in the third year (of his reign), the master of the science of music makes (the citizens of) the capital enjoy themselves by causing the performance of folk dances, (classical) dances, songs and instrumental music and the celebration of festivals, fairs. (Courtsey : Utkal University of Culture)"

Secondly - Texts : It has its own texts like Gita Govinda of Sri Jayadeva, Sangita Såra of Hari Nåyak, Gita Prakåsh of Krushna Dås Badajenå Mohåpåtira, Sangitamava Chandrikå of Nilakantha, Sangita Muktabali of Harichandana, Natya Manorama of Raghunath Rath and Sangita Narayan of Purusottam Mishra and many others. It is worth noting that the said texts have not been taken into account by Vishnu Narayan Bhåtkhande during his countrywide tour in order to collect, consolidate the relevant materials and formulate the system of Hinduståni music. This is a clear pointer to the claim that such texts have uniqueness of their own.

The Odissi text Sangit Muktabali was written in the last decade of the 16th century by Harichandan, the king of Kanika, situated in undivided Cuttack district of coastal Odissa. In this book Harichandan has referred to the ancient texts such as Nātya Shāstra of Bharat Muni, Bishnupurāna, Siva Samhitā, Brahma Samhitā, Nārada Samhitā, Kohaliya, Sangita Sāra of Hari Nayak, Matanga tantram, Sangita Ratnamālā of Mammatachārya, Kalānkura Nibandha, Panchama sārā samhitā, Raga Vibeka, Sangita Chandrikā, Bāonmaya Vibeka, Siva vibeka prabandha, Sangita Damodara and Gita Govinda etc.

During 1728 to 1767 A.D. Purusottam Mishra who has written Sangita Nārāyan under the pseudo name of Gajapati Nārāyan Dev of Parlakhemundi has referred to Bharata, Kohala, Biswakarmā, Nārada samhitā. Siva Samhita, Parsuram samhitā, Mattnga, Sangita Ratnākar, Panchama Sāra Samhitā, Kālankura, Rāga Vibeka, Sangita Ratnamālā, Sangita Dāmōdara, Sangita Sāra, Sangita Koumudi, Gita Prakāsh, Sangita Siromani, Sangita Darpana, Sangita Kalpataru, Sangita Chandrikā, Gita Govinda Tikkā of Laxman Bhatta etc. The aforesaid texts are the most important source books and are being followed by the musicologists later.

Thirdly, the poets of Odissa have made copious references to the rāgas and tālas in their lyrical poems.

Fourthly, a unique and characteristic style is conspicuously discernible in the recital by the Odissi singers.

Fifthly, the characteristic tālas are explicitly distinct and stand distinguished from the other systems.

Sixthly, since the Odissi dance has earned classical status, there is no reason why the Odissi

music too should not deserve the status of classical music.

Lastly, can we claim without oddity that Jayadev's Gita Govinda which contains all the salient and distinguishing features of a classical music falls short of the status of classical music ?

Native Rāgas

We can identify that the rāgas which are being used in Udra or Odissi since the 7th century A.D. till the 19th century A.D. as native rāgas. For illustration, the names of some rāgas which were in vogue before 1600 A.D. are mentioned below. Thereafter, many more rāgas are also being used in Odissi.

Rāgas mentioned in Charjyāgitikās written by many Odiyā Boudha sidhachāryas starting from the 7th to 11th century are Kāmōda, Gujjari, Goudā, Deshākshya, Dhanāshree, Dhanāshi, Pattamangari, Bangāli, Barādi, Vairabi, Mallāri, Mālāshri, Rāmakeri, Sāberi, Gunjari etc.

Rāgas mentioned in Gita Govinda of Shree Jayadev (1147) are Kārnatā, Gujjari, Gundakeri, Deshabarādi, Deshākshya, Vasanta, Barādi, Vairabi, Bibhāsa, Mangalagujjari, Mālāba, Mālāba goudā, Rāmakeri etc.

Rāgas mentioned in Abhinava Gita Govinda of Kabichandra Ray Dibākar Mishra (during 1466 to 1497) are Amarapanchama, Abhiri, Kukubha, Karnāta, Bangāla, Kalahansa, Kalyānanāta, Kāmboji, Kuranji, Kedārgoudā, Kolāhala, Gāndhāra, Gujjari, Gondakeri, Gandā, Ghantāra, Chintadeshi, Chhāyānata, Todi, Dipaka, Deshākshya, Deshi, Dhanāshri, Natanārāyan, Nādarāmakeri, Nārāyan Deshākshya, Nārāyan Gondā, Bhinnashadja, Bhupāla, Vairaba, Vairabi, Mangalagujari, Madhyamādi, Mallāra, Mallāhāri, Mārudhanāshri, Mālābagandā, Mālāshri, Mukhāri, Rāmakeri, Rebagupta, Lalitā, Bangāla,

Bangälaganda, Vasanta, Beläbali, Shankaräbharana, Shudhanata, Shudhabarädi, Shudhabangäla, Shudhavasanta, Shreeräga, Sosubarädi, Sälankanata, Soma, Sourästra Gujari, Hindola etc.

Rägas mentioned in Rukmini Parinaya of Näräyan Bhanjadev (1525) are Karnäta, Kämodi, Gujjari, Gouri, Dakshinashree, Deshähkya, Vairabi, Barädi, Basanta, Mälaba, Mälabagandä.

Rägas mentioned in Jagannäth Ballava Nätka of Rây Rämänanda Pattnaik (1535) are Ahira, Karnäta, Kedära, Gändhäri, Gondäkeri, Todi, Barädi, Dukhibarädi, Deshähkya, Nata, Vasanta, Mangala Gujjari, Mallära, Mälaba, Mälashri, Rämakeri, Keli, Shukasindudä, Sahäi or Suhäga etc.

Rägas mentioned in Sangita Kaumudi (16th century) are Vairabi, Bhupati, Shree, Patamanjari, Vasanta, Bhupäla, Säranga, Mälaba, Deba Gändhära, Vairabi, "Gunjari, Neelämbari, Barädi, Megharangi, Beläbali, Deshakari, Bangäli, Mälabi, Mallähäri, Deshikär, Rämakriyä, Todi, Debakriyä, Kurukureba, Gundakriyä, Säranga, Dhanäsi, Lalita, Nata, Käamboji, Voula, Bhupäla, Äbhira, Kalahansa, Näräyani, "Shankaräbharana, Hindoli etc.

Rägas mentioned in Gita Prakäsh of Krishna Däs Badajenä Mahäpätra (1565 AD) are Nata, Karnäta, Dakshinashri, Ämranchama, Kämodi, Gunjari, Debakri (Shudha vasanta), Vasanta, Rämakeri, Megha, Beläbali, Patamanjari, Mälashri, (Malasika), Bangäla, Barädi, Soma, Rebagupta, Todi, Deshähkya, Belläli (Balläli), Goudä, Deshi, Kolähala, Mallärikä, Dhanäsi, Mälaba, Gundakiri, Vairaba, Hindola, Chhäyätodi, Madhyamädi, Lalita, Shabari, Khambäbati, Harsapuri, Nagadwani, Goudä, Pratäppurbika, Purabi, Maruä, Kalyäna, Äshähari, Mallähäri, Gouri etc.

Rägas mentioned in Sangita Muktäbali of Kanikä Räjä (king) Harichandan (1590 AD) are Vasanta, Andolita, Hindola, Deshähkya, Lolä, Prathama Manjari, Malläri, Mallärikä, Madhyamädi, Shudhavairaba, Vairabi, Koushiki, Bibhäsa, Beläbali, Bangäli, Megha, Lalitä, Mälasi (Mäläshree), Souri, Nati, Drabida Gouda, Nata-Näräyan, Tärämani, Äbhiri, Kämodi, Dakhina Gujjari, Kukubha, Shree, Gändhari / Gändhärikä, Barädi, Deshibarädi, Dräbida baradi, Khambäbati, Karnäti, Näta Karnäta, Rebagupta, Soma, Ämranchama, Kämoda, Dräbida Goudä, Todi, Nata, Ghantära, Bhupati, Shankaräbharan, Kolähala, Karnätagouda, Goudä, Deshi, Dhanäsi, Balläli, Harsapuri, Hunchhikä, Bhouli, Shrikantikä, Shudhäbhiri, Mälabagoudä, Mälaba, Mällara, Deshapäla or Deshakari, Kedära, Nägadwani, Chhäyätodi, Gändhära etc.

Rägas mentioned in Odiyä Mahäbhärata of Säräla Däs (during 1436 to 1466 AD) are Amara, Äbhiri, Karnäta, Kedära, Gouri, Kalyäni, Patamanjari, Koushiki, Gurjari, Kashäkänädä, Jämälä, Gundakeri, Näräyani, Chintä, Chokhi, Nägäballi, Todi, Jämälätodi, Bichitradeshi, Dhanäshri, Deshi, Vasanta, Bibhäsa, Deshähkya, Bhupäla, Barädi, Vairabi, Bhupäla, Mälaba, Mälashri, Mangalabarädi, Malhära, Lalita, Rägeraj- Bangäla, Madhukeri, Äbara, Hindola, Panchama etc.

Rägas mentioned in Sangita Sära of Hari Nayak (15th Century) are Karnäta, Bhopala, Mälashri, Sindhu, Beläla, Pähäla, Bibhäsa, Näta, Chandani, Kämoda, Näräyan-Nata, Pattamanjari, Chokhi, Mukhäri, Malhäri, Malhära, Lalitä, Patimanjari, Angabhäsa, Säberi, Deshikari, Deshähkya, Gurjari, Rämakeri, Gundakeri, Rehi, Dhanä, Barädi, Mälaba, Shree, Kadhu, Megha Malhära, Nalani Godä, Chinta, Kedära, Vasanta, Vairabi, Banga Bhätiyäri, Meghamani, Panchama, Amara, Kedära Goudä etc.

Besides the above named poets and musicians, there are hundreds of lyrical poets and musicians of Odissa who have mentioned the names of Odissi ragas and their characteristics in their texts and treatises, written before and after 1600 A.D. There are some common ragas which are being used both in Hindustāni and Carnātic. Likewise there are some ragas in Odissi which are also used in Hindustāni or Carnātic.

The timings of recital of Odissi ragas synchronise with different seasonal festivals of Odissa. For example, it is enjoined that Vasanta raga be recited at any time between Sri Panchami and Vishnu Sayana and Mālabasri from Indrapujā to Durgapujā.

Tāla - The characteristic tālas of Odissi begin mostly from Anāgata or Atita graha. The layas are neither very slow (bilamvit) nor very fast (dāta). The nature of laya depends on dhruba lakshēa and mantha lakshaēa in order to render the meaning of pada (verses) clear and to make the recital distinct and melodious. Odissi music is largely set to Navatāla, namely Ādi, Jati, Nisāru, Ādda, Jhampā, Triputa, Rupaka, Mantha and Ekātālī

Gita - The classical songs are known as uttama gita or uchānga sangita, some of the characteristics of which are delineated below.

(a) The Odissi vocal is distinctive on account of dhātu (structure of the songs) and mātu (aesthetic relish). The importance of pada (verses) and swara (tune) are underlined. The dhātu is divided into four parts that means i.e. udgrah, dhruba, melāpaka & ābhog. The mātu is divided into six parts i.e. swara (rāga), tāla, tenā, pāta, virudha and gamaka. Some scholars have placed pada in lieu of gamaka. Out of four components of dhātu, dhruba cannot be omitted and out of six parts of mātu at least two are to be used. The classical songs are always set to rāga and tāla.

(b) Types of songs - The different types of songs in the domain of Odissi are suda prabandha, dhrubapada, Chitrakalā, Chitrapadā, Choupadi, Champu, Chhānda set in nava tāla. The type of recital is uniquely original. It is remarkable that the recital of bhajans and kirtans bear distinctive echo of Odissi tradition. Most of the lyrical poems revolve around the theme of Rādhā and Krishna.

(c) Paḍi - The paḍi recital of Odissi songs is very typical which distinguishes it from other classical forms.

Tenā - In lieu of tarānā of Hindustāni and Tillānnā of Carnātic tenā is one of the six components (anga) of Odissi prabandha.

Tāna : The use of long tāna is rare in Odissi music. Whenever it is used it is recited mostly in madya laya or with dhruba or mantha lakshaēa, but never in very druta laya. The tāna is often employed in the sense of swara.

Gamaka : Gamakas are always made use of in Odissi music. Out of 15 gamakas Āndolita, Bali, Kurāla, Āhata, Ullasita, Dhāla are frequently used in Odissi.

Shruti - Like other systems seven swaras have been derived out of 22 shrutis. But the names of the shrutis in Odissi are different from the shruties of other classical forms. The shruties referred to in Gita Prakāsh, Sangita Muktabali and Sangit Narāyan are as follows.

Nandi, Visālā, Sumukhi, Bichitrā, Ghanā, Chitrā, Galanikā, Mālā, Saraghā, Mātāngikā, Maitrei, Sibā, Māgadhikā, Bālā, Kalā, Sarangarabā, Rasā, Mātā, Amrutā, Vijayā and Madhukeri. In Hindustāni system the shrutis are Tibrā, Kumudabati, Mandā, Chhandobati, Dayābati, Rajani, Raktikā, Raudri, Krodhi, Bajrikā, Prasariēi, Priti, Mārjani, Khiti, Raktā, Sandipani, Ālāpini, Madanti, Rohini, Ramyā, Ugrā and Kshyovini. Currently the sudha swaras are

associated with the last shruti of the swara in Hindustani system. But in Odissi shudha swaras go with the first shruti of it.

Swara : In the text, Nātya Manoramā written by Raghunath Ratha in 1702, it is mentioned that seven swaras sā, re, gā, mā, pā, dhā, ni have been originated from Uttara, Maharashtra, Gouda, Kāshmir, Kānyakubja, Udra and Nepāl respectively. Udra is the land of Dhaibata swara.

"Sri Kānyakubja kāshmiri desou pancham madhamou
Mahārashthrodra desiyou gatā brusabha daibatou
Gāndhārascha nisādascha gouda nepāla desajou
Sadja Uttara desiya swara desāami matāh."

(Nātya manoramā, 1/82,83)

It is noteworthy that Dhaibata (dhā) swara is sung while invoking the Sun God. The Sun temple at Konark testifies to the widespread practice of Sun worship in Odissa.

Grāma - Now a days in Hindustāni system that method is being adopted in classifying and creating ragas. Vilāwal that has been identified as shudha that with all sudha swaras. In lieu of Sadja Grām or Madyama grām one swara gram consisting of all the swaras of Vilāwal that is in use. But in Odissi, the ancient Sudja grām and madhyama grām are still in practice. The first murchhanā of madhyama gram comprises the swaras of Shree rāga.

Murchhanā - The names of the murchannas are different in Odissi system, i.e. Sadja gram murchhanās are - Lalitā, Madhyamā, Chitrā, Rohiēi, Matangajā, Soubira and Barnamadhyā.

Madhyam Grām murchhanās - Matsari, Mrudumadyā, Sudhāntā, Kalābati, Tibrā, Roudri, Brāhmi.

Gandhar gram murchhanās - Vaishnavi, Khechari, Barā, Nādā, Bati, Vishāla & Bichitrā.

But in Hindustani system Sadja gram and Madhyam grām murchhanas are - Uttara mandrā, Rajani, Uttarāyatā Sudhasadjā, Matsarikrutā, Ashwakraṅtā Abhirudgatā, Soubiri, Harināswā, Kalaponatā, Sudhamadhyā, Mārgi, Pourabi, Hrushyakā.

Pravāttis : Odissi music has its moorings in the Nātya shāstra of Bharat muni, Sangit Ratnākar of Sārangadev etc. comprising of Udra māgadhi pravātti, ardhmāgadhi giti. Udra Māgadhi is one of the five pravāttis namely Ābanti, Udra Magadhi, Pāñchali, Dakshinātyā and Madhyamā. In Nātya shāstra, Bharat muni has mentioned about Udra Māgadhi Pravātti.

"Chatasro vāttayo hyedā yāsu nātyam pratisthitam
Āvanti dakhinatyā cha tatha chaibodramagadhi
Pāñchālī madhyamā cheti bigneyāstu pravāttayah."

(Nātya shāstra, 6 : 25,26)

(Pub. Odissa Sahitya Academi, 2nd edition)

While describing about the principles of purvaranga Bharat muni has mentioned the name of Udra in Nātyashāstra.

"Yathā hyapapraye gastu prayukto dahati khyanāt
Itye babanti pāñchāla dākhiētyodra māgadhaih."

(Nātya shāstra, 5:168)

As per his account udra māgadhi is an independent pravāti. Some scholars have not taken madhyamā pravāti into account.

The term Udra is in currency from pre-historic era. The name Uddiān is found in Skanda Purāna and Udra is found in Padma Purāna and Vishnu Purāna. Some scholars have opined that Udra means uōra, i.e. äōra (drenched in water). Odissa being a land of rivers with long coastal belt is relatively wet. Once upon a time the coastal area was known as māgadhi.

The 'Uro' was the language of ancient hunter tribe of Odissa which resembles Udra.

During the reign of emperor, Kharavela, Udrajā was a language of natives of Kalinga. The Udrajā Bibhāsā mentioned in Nātya Shāstra is no other than Udra bhāsā. According to the grammar text, 'Prākṛuta Sarbaswa' of Markendeya, Udra was the language of Udra state. Huentsang has also mentioned about Udra or odra. During 600 B.C. to 200 B.C., Udra Magadhi language was dominated by Māgadhi but it was revived in the reign of Kharavela.

Giti - Out of the four padāshrita gitis, i.e. Māgadhi, Ardhamāgadhi, Sambhābita and Pruthula, Ardhamāgadhi is the recital mode of Udrāmāgadhi pravātti. Out of five Swarāshrita gities, i.e. Shudhā, Bhinnā, Goudi, Besarā and Sādharani, Bhinnā giti is the recital style of Udra māgadhi pravāti. It is mentioned in Bāhaddesi of Matanga muni that :-

"Alankārā mayā prokta yathābanmunisattam.
Atha giti pravakshyāmi chhandoakshara samanyitam."

(Anu : 103/170)

Prathamā māgadhi gīyeyā dwitiyā chārdhamāgadhi
"Sambhavitā trutiyā cha chaturthi pruthula smrutā

(Anu : 103/171)

Trinirvṛutā cha yā gīthi sa gīrīmāgadhismrutā
Ardhakālanivrutta cha vigīyeyā twardhamāgadhi."

(Anu : 103/172)

"Sumbhāvita cha vīneyā gurvāksharasamanvitā.
Pruthulākhyā cha vigīyeyā laghwāksharasamanvitā."

(Anu : 103/173)

About ardhamāgadhi giti it is mentioned in Dattilam that :-

"Tatrasyanmāgadhi chitraipadaih samanivāttakaih
Ardhakāla nivāttaista varnādhyā chārdhamāgadhi."

(2: 238)

i.e. Māgadhi is performed in chitra mārga in which the words are repeated in equal time. Whereas

the udrāmāgadhi is rich in varnas with repetitions of words made in half the time of māgadhi.

Some Jain texts reveal that Mahavir, the 24th Tirthankar was propagating spiritual values in Ardhamāgadhi language. Prof. Jacobi has also referred to ardha magadhi as Jaina Prākāta. Bharat Muni has described about seven native languages namely - Māgadhi, Ardha Māgadhi Ābantika, Prāchya, Souraseni. Dākshinatya and Bahmikā. Out of four padashrita giti i.e. Gitis associated with pada (verse) Ardha māgadhi is a separate one which points to Ardha magadhi language now developed as odiya language in contemporary period.

Bhinnāgiti :-

In instrumental music when pada (verses) or lyrical poems are not in use the identity of Odissi music is established by Bhinnā giti.

"Sukshmaishcha prachalairvakrai rullasitaprasāritaih
Lalitaistaramandraishcha Bhinnā gitirudahruta."

(Brhāddesi 3 : 276)

Bhinnā giti is that one which is used with sukshma (short in time), mobile, curved, ullasita (made to shine upwards), prasārita (spread out), attractive, high and low (swaras).

Vātti : Vātti means typical style of recital. There are 3 vātties i.e. chitrā, vārtika and dakshīā. In dakshina vātti the song dominates the vādya, in vātti (vārtika) the song and the vādya have equal importance, but in chitrā vātti the vādya dominates the song. It is mentioned in Dattilam that -

"Dakṣīnā vāttischitrāscha vāttayastāswayam vidhih.
Pradhānam gitamubhayam vādyaṁ cheti yathākramam."

(1:43)

Vātti (vārtika) is used in Odissi music, which is set to dwikalā in madhya laya, srotāgatā jāti, sama graha and ardhamāgadhi giti. The playing of instruments and singing of padas have equal

significance in this vāitti, which is used in Vārtika mārga.

Notation : Script is indispensable for codifying language. It is necessary that a qualified musician is one who not only recites but is able to write and read off the music from the notation. Odissi music has its own notation script which is contained in the text, Sangita Sarbaswa written in 1914 by Chandrachudamani Harichandan Jagadev, the king of Surangi presently in Ganjam District.

Dance : Odissi (Udra) dance is an independent system among the ancient seven distinctive forms of classical dance. The seven forms of dances namely Māgadhi, Sauraseni, Karanāta, Kerala, Gouda, Panchanada and Udra are mentioned in Abhinaya Chandrikā of Maheswar Mohāpātra. This goes to corroborate that Udra dance is independent and the accompanying components

like vocal and instrumental music are also distinctive.

Odissi vocal has all the parameters to be reckoned as classical. The whole hearted support and participation of the Government, concerned organisations, musicians, listeners and conscious public are needed. There should be an all out effort to rediscover, preserve and promote the musical ethos and bequeath this rich legacy of Odissi classical music to our posterity.

The seminars and workshops may be conducted so as to be clarified about the classicism of Odissi vocal and instrumental music.

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Hon'ble Chief Minister Shri Naveen Patnaik distributing Agriculture Mini-Kit at Hinjili on 11.11.2007.

Veiled Realities

Bharati Nayak

Oh lovely bride,
From under your dazzling veil,
Reveals your face beautiful,
With red *Kumkum* and *sandal* dotted
On your graceful forehead,
Doe eyes and black lashes
Curved eyebrows and charming lips.
The ornaments you wear,
Only adding allures
To your fine features.

The music of band party
The holy sound of *shenai*, *hulahulies*
and conch shells,
Mixed with the buzz or gatherings,
Signal the arrival of bride groom you are waiting.
Oh lovely bride,
You wear a smile
To welcome the guests
Who have gathered,
To give you a farewell.

Oh lovely bride,
Why do you hide,
Those tears,
That swell beneath your eyes ?

Why do you,
Cover up those sorrows,
With your smile,
Why do you choke yourself
With your muffled sobs,

Drowned under the sound of conchshells ?
Why do you drouse your burning cheet.
With your smile, that you know a masquerade ?

Oh lovely bride,
Let your tears flow,
Let them flow,
Till you drain them all,
As you Know,
These won't be an occasion
When you can cry
To your hearts fill,
Nor can you smile,
To your hearts desire.

Cry, cry, till
You pour them all,
Before you give
Final burial,
To those tears, Which are real.
And say bye ,
To those dreams,
Wishes, laughter and love,
That you conceal
In your heart,
Before you proceed,
To the fate unknown.

The poet lives at Khandagiri, Bhubaneswar.

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